

620
En3
1908-10


DIRECTORY
of Manufacturers of
and Dealers in
ENGINEERS
and
CONTRACTORS
MACHINERY
and
SUPPLIES

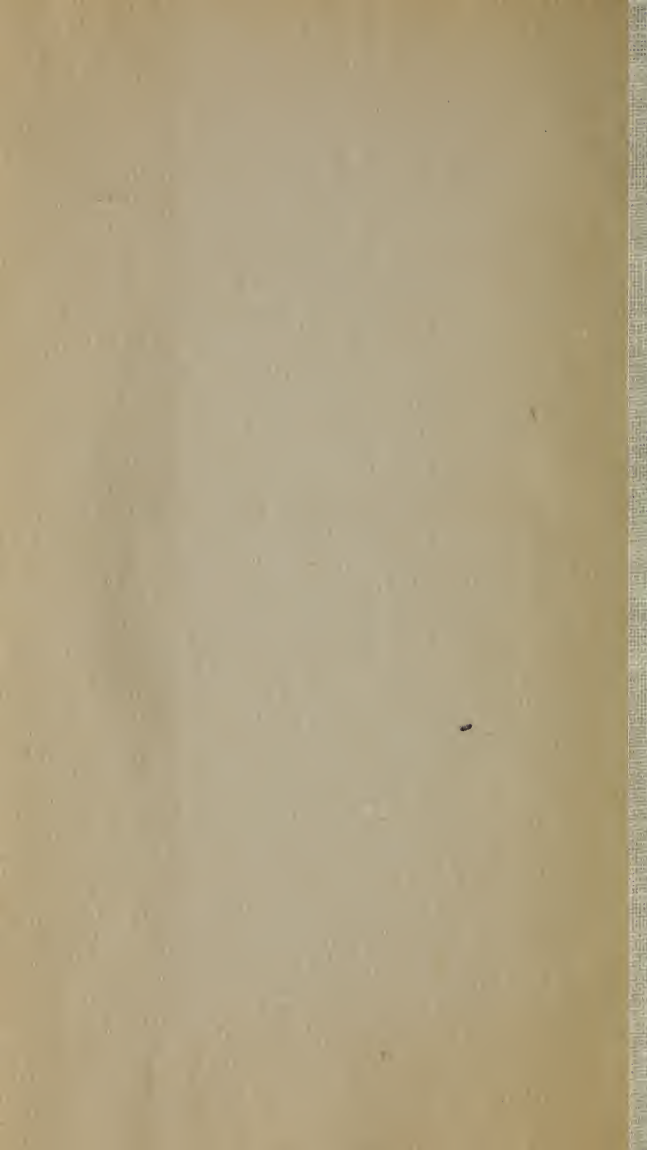
1908
EDITION

Published by
The Engineering Record ✓
239 West 39th St.
New York

**THE UNIVERSITY
OF ILLINOIS
LIBRARY**

620
En3
1908-10







Digitized by the Internet Archive
in 2016

2875
95
Jen

Directory

of Manufacturers of
and Dealers in

Engineers

and

Contractors

and

Machinery

and

Supplies

A Classified List of Machinery and Supplies manufactured by advertisers in the Fifth Annual Contractors' Number of The Engineering Record.

Copyright 1908 by
McGraw Publishing Company

Published by
The Engineering Record
239 West 39th St.
New York

Chicago
Philadelphia

Cleveland
London

ANNOUNCEMENT.

This booklet is believed to contain the only published directory comprised exclusively of manufacturers of and dealers in engineers' and contractors' machinery and supplies.

It is only fair to state that it is not intended as a complete directory of the trade, but is limited to those whose advertisements appear in the Fifth Annual Contractors' Number of THE ENGINEERING RECORD, April 4, 1908.

No inconsiderable amount of time and expense has been required in the preparation of this directory, whose 20,000-copy circulation is distributed among the regular subscribers to THE ENGINEERING RECORD, and to an additional special list of contractors who received copies of the 1908 Annual Contractors' Number of the paper.

THE ENGINEERING RECORD has come to be universally regarded as the most progressive journal in the world devoted

620
En 3
1908-10

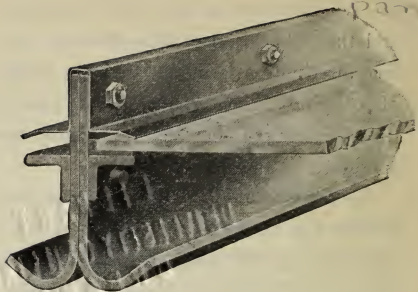
2-25-RS

to civil engineering and allied subjects, and the publication of this directory for free distribution is in line with its policy of offering to its readers and advertisers every possible assistance and co-operation in their work.

The strength of THE ENGINEERING RECORD lies in the fact that the subjects in the broad field which it covers are so related to each other that the ambitious beginner, as well as the chief engineer of a railroad, the young draftsman and the mill architect whose work requires a large staff, the man who designs the structural features of small buildings or the largest bridges, the surveyor of a small town or the engineer of a large city, the contractor for small works or the builders of railways and the largest public and private works—all find the paper of material use.

Engineering Record
Bdg. 440 16

594218

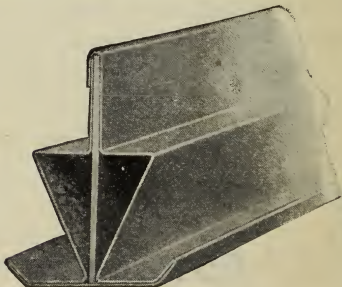


Thos. W. Irwin Mfg. Co.

North Side, Pittsburgh

SKYLIGHTS

We have been making skylights for 35 years for all kinds of structures, every square foot of which has given entire satisfaction. Our skylights insure absolutely water proof, secure and compact lighting system, with no possibility of leaks, sweating or dripping.



A CLASSIFIED LIST OF ENGINEERS' AND CONTRACTORS' MACHINERY AND SUPPLIES

Air Brakes

Allis-Chalmers Co., Milwaukee, Wis.
General Electric Co., Schenectady, N. Y.
National Brake & Electric Co., Milwaukee, Wis.

Air Compressor Lubricators

Bury Compressor Co., Erie, Pa.
McKiernan Drill Co., 115 B'way, New York.
Powell Co., Wm., Cincinnati, Ohio.

Air Compressors

Abenague Machine Works, Westminster Station, Vt.
Allis-Chalmers Co., Milwaukee, Wis.
American Air Compressor Works, 26 Cortlandt St., New York.
Artesian Well & Supply Co., Dyer & Friendship Sts., Providence, R. I.
Blaisdell Machinery Co., The, Bradford, Pa.
Bury Compressor Co., Erie, Pa.
Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburgh, Pa.
Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.
Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.
Contractors' Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Dean Bro.'s Steam Pump Works, Indianapolis, Ind.
General Electric Company, Schenectady, N. Y.
Independent Pneumatic Tool Co., Chicago and New York.
Ingersoll-Rand Co., 11 B'way, New York.
Knowles Steam Pump Co., 115 B'way, New York.
McKiernan Drill Co., 115 B'way, New York.
Mietz, August, 128-138 Mott St. New York.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
National Brake & Electric Co., Milwaukee, Wis.
Norwalk Iron Works Co., So. Norwalk, Conn.
Power & Mining Machinery Co., Cudahy, Wis.
Scully Steel & Iron Co., Chicago, Ill.
Shaw Co., Willis, 171 La Salle St., Chicago, Ill.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Wisconsin Engine Co., Corliss, Wis.

Mention the "Record" when writing.

Air Compressors (Portable)

Abenague Machine Works, Westminster Station, Vt.

Allis-Chalmers Co., Milwaukee, Wis.

American Well Works, Aurora, Ill.

Bury Compressor Co., Erie, Pa.

Contractors' Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

General Electric Co., Schenectady, N. Y.

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ills.

Independent Pneumatic Tool Co., Chicago and New York.

Ingersoll-Rand Co., 11 Broadway, New York.

Kanawha Chemical Engine Mfg. Co., Charleston, W. Va.

McKiernan Drill Co., 115 B'way, New York.

Mietz, August, 128-138 Mott St., New York.

National Brake & Elec. Co., Milwaukee, Wis.

Air Compressors (Portable on Auto Trucks)

General Electric Company, Schenectady, N. Y.

Kanawha Chemical Engine Mfg. Co., Charleston, W. Va.

National Brake & Elec. Co., Milwaukee, Wis.

Union Steam Pump Co., Battle Creek, Mich.

Air Compressors (Water Jet)

Allis-Chalmers Co., Milwaukee, Wis.

American Well Works, Aurora, Ill.

Union Steam Pump Co., Battle Creek, Mich.

Air Drills (Electric)

Contractors' Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Ingersoll-Rand Co., 11 Broadway, New York.

Air Gages, Receivers, Tanks, Etc.

Bury Compressor Co., Erie, Pa.

McKiernan Drill Co., 115 B'way, New York.

Air Hose and Couplings

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Ingersoll-Rand Co., 11 B'way, New York.

McKiernan Drill Co., 115 B'way, New York.

Air Lift Pumping Machinery

American Air Compressor Works, 26 Cortlandt St., New York.

American Well Works, Aurora, Ill.

Bury Compressor Co., Erie, Pa.

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.

Ingersoll-Rand Co., 11 Broadway, New York.

McKiernan Drill Co., 115 B'way, New York.

Merritt & Co., 1015 Ridge Ave., Philadelphia.

Presler Prospecting & Engineering Co., Cinn., Ohio.

Sullivan Machinery Co., Railway Exchange, Chicago, Ill.

Union Steam Pump Co., Battle Creek, Mich.

Mention the "Record" when writing.

Air Pipe

American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.

Air Receivers, Tanks, Etc.

Graver Tank Works, Wm., East Chicago, Ind.
Ingersoll-Rand Co., 11 B'way, New York.

Air Tanks

Janney, Steinmetz & Co., Philadelphia, Pa.

Air Valves (Automatic)

Simplex Valve & Meter Co., 112 N. Broad St., Phila., Pa.

Alfalfa Meal Grinders and Shredders

Raymond Bros. Impact Pulverizer Co., 143 Laflin St., Chicago, Ill.

Aluminum

Janney, Steinmetz & Co., Philadelphia, Pa.

Aluminum Solder

Janney, Steinmetz & Co., Philadelphia, Pa.

Ambulances (Horse-Drawn and Self-Propelled)

Studebaker Bros. Mfg. Co., South Bend, Ind.

Angle Cutters

Pels & Co., Henry, 66-68 Broad St., New York.

Angle Straightening Machines

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Angles and Tees

Scully Steel & Iron Co., Chicago, Ill.

Angles, Channels, Tees, Etc.

American Bridge Co., 42 B'way, New York.
Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.

Berlin Construction Co., Berlin, Conn.

Boston Bridge Works, 47 Winter St., Boston.

Buffalo Steel Co., Towanda, N. Y.

Calumet Steel Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.

Clinton Bridge & Iron Works, Clinton, Iowa.

Decatur Bridge Co., Decatur, Ill.

Douglas, Geo. B., 29 B'way, New York.

Eichleay, Jr., Co., John, Pittsburgh, Pa.

Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.

Lombard Iron Works & Supply Co., Augusta, Ga.

Memphis Bridge Co., Memphis, Tenn.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Pennsylvania Steel Co., The, Phila., Pa.

Portland Iron & Steel Co., Board of Trade Bldg., Boston, Mass.

Mention the "Record" when writing.

Schreiber & Sons Co., L., Cincinnati, Ohio.
Standard Concrete Steel Co., 31st to 32d Sts.,
East River, New York.
Whitehead & Kales Iron Works, Detroit, Mich.

Anvils

Wiebusch & Hilger, "Ltd.," 9 Murray St.,
New York.

Anvils (Blacksmiths')

Scully Steel & Iron Co., Chicago, Ill.

Architects' Supplies

Architects & Engineers Supply Co., 1010 Grand
Ave., Kansas City, Mo.
Barrett Mfg. Co., New York & Chicago.
Lufkin Rule Co., Saginaw, Mich.

Architectural and Ornamental Iron Work

Bellefontaine Bridge & Steel Co., Bellefontaine,
Ohio.
Belmont Iron Works, 22d St. & Washington
Ave., Philadelphia, Pa.
Brooks & Co., T. H., Cleveland, Ohio.
Concrete Steel Engineering Co., Park Row
Bldg., New York.
Darby & Sons Co., "Inc.," Edw., Philadelphia,
Pa.
Decatur Bridge Co., Decatur, Ill.
Douglas, Geo. B., 29 B'way, New York.
Eastern Bridge & Structural Co., Worcester,
Mass.
General Fireproofing Co., The, Youngstown,
Ohio.
Insley Iron Works, Indianapolis, Ind.
Kenwood Bridge Co., 1416 First Nat'l Bank
Bldg., Chicago, Ill.
Lombard Iron Works & Supply Co., Augusta,
Ga.
Mesker & Bro., 421 So. 6th St., St. Louis, Mo.
Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.
Mullins Co., W. H., 342 Franklin St., Salem,
Ohio.
Noelke-Richards Iron Works, Indianapolis, Ind.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Trussed Concrete Steel Co., Detroit, Mich.
Whitehead & Kales Iron Works, Detroit, Mich.

Artesian Well Contractors

Artesian Well & Supply Co., Dyer & Friend-
ship Sts., Providence, R. I.
Pittsburg Tubular Steel Whiffletree Co., Pitts-
burg, Pa.
Preslar Prospecting & Engineering Co., Cin-
cinnati, Ohio.

Artesian Well Pumps

Douglass, W. & B., Middletown, Conn.

Mention the "Record" when writing.

Artesian Wells, Tools and Pumps (See Well-Drilling Mach'y)

American Well Works, Aurora, Ill.
Artesian Well & Supply Co., Dyer & Friend-
ship Sts., Providence, R. I.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Dean Bro.'s Steam Pump Works, Indianapolis,
Ind.
Pittsburg Tubular Steel Whiffletree Co., Pitts-
burg, Pa.
Preslar Prospecting & Engineering Co., Cin-
cinnati, Ohio.
Union Steam Pump Co., Battle Creek, Mich.
U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Artists' Materials

Architects & Engineers Supply Co., 1010 Grand
Ave., Kansas City, Mo.

Asbestolith Fireproof Floors

American System of Reinforcing, 189 La Salle
St., Chicago, Ill.

Asbestos

Bayer, J. C., Front & Market Sts., Portland,
Ore.
Johns-Manville Co., H. W., 100 William St.,
New York City.

Asbestos Braided Tubing

Johns-Manville Co., H. W., 100 William St.,
New York City.

Asbestos Building Lumber

Johns-Manville Co., H. W., 100 William St.,
New York City.

Asbestos Cement

Johns-Manville Co., H. W., 100 William St.,
New York City.

Ash Wagons

Watson Wagon Co., Canastota, N. Y.

Asphalt

American Asphaltum & Rubber Co., Woman's
Temple, Chicago, Ill.
Barber Asphalt Co., A. L., 90 West St., New
York.
Bayer, J. C., Front & Market Sts., Portland,
Ore.
Dow & Smith, 24-26 East 21st St., New York.
Potomac Dredging Co., 24-25 Home Life Bldg.,
Washington, D. C.
Sicilian Asphalt Paving Co., The, 41 Park
Row, New York.
Standard Asphalt & Rubber Co., 944 First Nat'l
Bank Bldg., Chicago, Ill.

Asphalt Paints

Garry Iron & Steel Co., Cleveland, Ohio.

Mention the "Record" when writing.

Asphalt Paving

Barber Asphalt Co., A. L., 90 West St., New York.
Dow & Smith, 24-26 East 21st St., New York.
Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.
Sicilian Asphalt Paving Co., The, 41 Park Row, New York.
Standard Asphalt & Rubber Co., 944 First Nat'l Bank Bldg., Chicago, Ill.

Asphalt Paving Contractors

Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.
Sicilian Asphalt Paving Co., The, 41 Park Row, New York.

Asphalt Plants

Cummer & Sons Co., F. D., 413 Arcade, Cleveland, Ohio.
Petroleum Iron Works Co., The, Sharon, Pa.
Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.

Asphalt Roofing

Garry Iron & Steel Co., Cleveland, Ohio.

Asphalt Tanks and Kettles

Graver Tank Works, Wm., East Chicago, Ind.

Asphalt Tools

Buffalo Steam Roller Co., Buffalo, N. Y.
Cummer & Sons Co., F. D., 413 Arcade, Cleveland, Ohio.
McCoy & Co., Henry J., 65-67 Dey St., N. Y.
Perrin, Seamans & Co., 57 Oliver St., Boston, Mass.
Union Iron Works, The, Hoboken, N. J.
Watson-Stillman Co., The, 26 Cortl'dt St., N.Y.

Asphalt Wagons

Watson Wagon Co., Canastota, N. Y.

Attorneys

King, Geo. A. & Wm. B., 728 17th St., Wash., D. C.
Pradt, L. A., 500-1 Hibbs Bldg., Wash., D. C.
Thompson, Edward P., 50 Morningside Ave., West, New York.

Augers, Pneumatic

Ingersoll-Rand Co., 11 B'way, N. Y.

Automobile Tanks and Fenders

Badger & Sons Co., E. B., 63-75 Pitt St., Boston, Mass.

Balancer (Analytical and Chemical)

Ainsworth & Sons, Wm., Denver, Colo.

Balancer (Assay)

Ainsworth & Sons, Wm., Denver, Colo.

Mention the "Record" when writing.

Ball Bearings

Walker Mfg. Co., Fenton, Mich.

Ball Mills

Allis-Chalmers Co., Milwaukee, Wis.

Kent Mill Co., 170 B'way, N. Y.

Power & Mining Machinery Co., Cudahy, Wis.
Prosser & Sons, Thos. ("Krupp"), 15 Gold
St., New York.

Raymond Bros. Impact Pulverizer Co., 143
Lafin St., Chicago, Ill.

Smidth & Co., F. L., 39-41 Cortl'dt St., N. Y.
Sturtevant Mill Co., Harrison Sq., Boston,
Mass.

Traylor Engineering Co., 2 Rector St., N. Y.

Ballast Spreaders

Bucyrus Co., The, So. Milwaukee, Wis.

Shaw Co., Willis, 171 La Salle St., Chicago, Ill.

Ballast Unloaders

Broderick & Bascom Rope Co., St. Louis, Mo.
Chandler, Geo. M., 42-9 N. Illinois St., India-
napolis, Ind.

Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Marion Steam Shovel Co., The, 640 W. Center
St., Marion, Ohio.

Banks

Coal & Iron Nat'l Bank, The, 143 Liberty St.,
New York.

Barrows (Baggage)

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Barrows (Concrete)

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Bars (Steel)

Douglas, Geo. B., 29 B'way, N. Y.

Scully Steel & Iron Co., Chicago, Ill.

Beam Punches

International Electric & Engineering Co., 148
Chambers St., New York.

Pels & Co., Henry, 66-68 Broad St., N. Y.

Watson-Stillman Co., The, 26 Cortl'dt St., N.Y.

Beam Shears

International Electric & Engineering Co., 148
Chambers St., New York.

Pels & Co., Henry, 66-68 Broad St., N. Y.

Wood & Co., R. D., 400 Chestnut St., Phila., Pa.

Beams and Channels

Scully Steel & Iron Co., Chicago, Ill.

Beams (Steel)

Douglas, Geo. B., 29 B'way, N. Y.

Mention the "Record" when writing.

Bearings, Ball and Roller

Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburgh, Pa.

Wiener Company, Ernst, 168 Morris Bldg., N.Y.

Bearings, Oilers and Self-Oiling

Chain Belt Co., Milwaukee, Wis.

Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburgh, Pa.

Valley Iron Works, Williamsport, Pa.

Wiener Company, Ernst, 168 Morris Bldg., N.Y.

Bellows

Perrin, Seamans & Co., 57 Oliver St., Boston,
Mass.

Belt Conveyors

Bacon, Earle C., Havemeyer Bldg., N. Y.

Chain Belt Co., Milwaukee, Wis.

Climax Road Machine Co., Marathon, N. Y.

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Mead-Morrison Mfg. Co., Cambridge, Mass.

National Belting Co., The, Lawrence, Mass.

Nims Concrete Machinery, Philadelphia, N. Y.

Robins Conveying Belt Co., Passaic, N. J.

Standard Sand & Machine Co., Cleveland, O.

Sturtevant Mill Co., Harrison Sq., Boston,
Mass.

Webster Mfg. Co., 1075 W. 15th St., Chicago,
Ill.; 88-90 Reade St., New York.

Belt Dressing

Clow & Sons, James B., Chicago, Ill.

Dixons Crucible Co., Jos., Jersey City, N. J.

National Belting Co., The, Lawrence, Mass.

Belt Tighteners

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Belting Canvas

National Belting Co., The, Lawrence, Mass.

Belting, Chain, Link, Canvas, Etc.

Chain Belt Co., Milwaukee, Wis.

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Lombard Iron Works & Supply Co., Augusta,
Ga.

Nims Concrete Machinery, Philadelphia, N. Y.

Robins Conveying Belt Co., Passaic, N. J.

Standard Sand & Machine Co., Cleveland, O.

Webster Mfg. Co., 1075 W. 15th St., Chicago,
Ill.; 88-90 Reade St., New York.

Belts (Coal-Handling)

National Belting Co., The, Lawrence, Mass.

Belts (Stone-Crusher, Endless)

National Belting Co., The, Lawrence, Mass.

Benders (Rail)

Scully Steel & Iron Co., Chicago, Ill.

Mention the "Record" when writing.

Benders (Roller, Eccentric and Jim-Crow)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Bending Machines

Scully Steel & Iron Co., Chicago, Ill.

Bending, Straightening and Punching Machines

International Electric & Engineering Co., 148 Chambers St., New York.

Pels & Co., Henry, 66-68 Broad St., N. Y.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Watson-Stillman Co., The, 26 Cortl'dt St., N.Y.

Wood & Co., R. D., 400 Chestnut St., Phila., Pa.

Blacksmith Shop Supplies

Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.

Blacksmiths' Tools

Buffalo Forge Co., Buffalo, N. Y.

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.

International Electric & Engineering Co., 148 Chambers St., New York.

Lombard Iron Works & Supply Co., Augusta, Ga.

Lufkin Rule Co., The, Saginaw, Mich.

Pels & Co., Henry, 66-68 Broad St., N. Y.

Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.

Scully Steel & Iron Co., Chicago, Ill.

Blast Furnaces and Fittings

Petroleum Iron Works Co., The, Sharon, Pa.

Power & Mining Machinery Co., Cudahy, Wis.

Riter-Conley Mfg. Co., Pittsburgh, Pa.

Sharon Boiler Works, Sharon, Pa.

Traylor Engineering Co., 2 Rector St., N. Y.

Blast Hole Loaders

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Blasting Powder

Ætna Powder Co., The, Chicago, Ill.

du Pont de Nemours Powder Co., E. I., Wilmington, Del.

Keystone Powder Mfg. Co., Emporium, Pa.

National Powder Co., 353 Fifth Ave., N. Y.

Perrin, Seamans & Co., 57 Oliver St., Boston, Mass.

Sinnamahoning Powder Mfg. Co., Emporium, Pa.

Blocks and Tackle

Patterson Co., W. W., Pittsburg, Pa.

Perrin, Seamans & Co., 57 Oliver St., Boston, Mass.

Blocks and Trolleys

Broderick & Bascom Rope Co., St. Louis, Mo.

Mention the "Record" when writing.

Dobbie Foundry & Machine Co., Niagara Falls,
N. Y.

Leschen & Sons Rope Co., A., St. Louis, Mo.
Lombard Iron Works & Supply Co., Augusta,
Ga.

Patterson Co., W. W., Pittsburg, Pa.
Reading Crane & Hoist Works, Reading, Pa.
Union Iron Works, The, Hoboken, N. J.

Blocks (Clay Furring)

National Fire Proofing Co., 115 Adams St.,
Chicago, Ills.

Blocks (Gate)

Patterson Co., W. W., Pittsburg, Pa.

Blocks (Pulley)

Patterson Co., W. W., Pittsburg, Pa.

Blocks (Snatch)

Patterson Co., W. W., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.

Blocks (Tackle)

Patterson Co., W. W., Pittsburg, Pa.

Blocks (Wire Rope)

Patterson Co., W. W., Pittsburg, Pa.

Blocks (Wood)

Patterson Co., W. W., Pittsburg, Pa.

Blowers

American Blower Co., Detroit, Mich.

Buffalo Forge Co., Buffalo, N. Y.

Dean Bro.'s Steam Pump Works, Indianapolis,
Ind.

De Laval Steam Turbine Co., Trenton, N. J.

D'Olier Engineering Co., 121 So. 11th St.,
Philadelphia, Pa.

General Electric Co., Schenectady, N. Y.

Green Fuel Economizer Co., Matteawan, N. Y.

International Electric & Engineering Co., 148
Chambers St., New York.

Lawrence Machine Co., Lawrence, Mass.

New York Blower Co., Chicago, Ill.

Raymond Bros. Impact Pulverizer Co., 143
Lafin St., Chicago, Ill.

Scully Steel & Iron Co., Chicago, Ill.

Sirocco Engineering Co., 138 Cedar St., New
York City.

Sturtevant Co., B. F., Hyde Park, Mass.

Traylor Engineering Co., 2 Rector St., N. Y.

Blower System of Heating and Ventilating

American Blower Co., Detroit, Mich.

Blue Print Filing Cabinets

Berger Mfg. Co., The, Canton, O.

General Fireproofing Co., The, Youngstown, O.

Technical Supply Co., 46 East 14th St., N. Y.

Blue Printing Machinery

Buckeye Engine Co., Salem, O.

General Electric Company, Schenectady, N. Y.

Mention the "Record" when writing.

Keuffel & Esser Co., Hoboken, N. J.
Wagenhorst & Co., J. H. Youngstown, O.

Blue Printing Paper and Machinery

Kolesch & Co., 138 Fulton St., N. Y.
Technical Supply Co., 46 East 14th St., N. Y.
Youngstown Car Mfg. Co., Youngstown, O.

Blue Print Paper

Dietzgen Co., Eugene, 181 Monroe St., Chicago, Ill.

Blue Prints

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.

Boiler Braces (Pressed)

Scully Steel & Iron Co., Chicago, Ill.

Boiler Fittings, Mountings and Parts

American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Lombard Iron Works & Supply Co., Augusta, Ga.

Lunkenheimer Co., Cincinnati, O.

Traylor Engineering Co., 2 Rector St., N. Y.

Boiler Fronts and Castings

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Boiler Makers' Punching Machines

International Electric & Engineering Co., 148 Chambers St., New York.

Pels & Co., Henry, 66-68 Broad St., N. Y.

Wood & Co., R. D., 400 Chestnut St., Phila., Pa.

Boiler Tubes

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.

Lombard Iron Works & Supply Co., Augusta, Ga.

Traylor Engineering Co., 2 Rector St., N. Y.

Boilers (Heating)

American Radiator Co., Chicago, Ill.

Andrews & Johnson Co., Chicago, Ill.

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.

Clow & Sons, James B., Chicago, Ill.

Gurney Heater Mfg. Co., 74 Franklin St., Boston, Mass.

Kewanee Boiler Co., Kewanee, Ill.

Lombard Iron Works & Supply Co., Augusta, Ga.

Sharon Boiler Works, Sharon, Pa.

Traylor Engineering Co., 2 Rector St., N. Y.

Boilers (Hot Water, Copper)

Badger & Sons Co., E. B., 63-75 Pitt St., Boston, Mass.

Mention the "Record" when writing.

Boilers (Steam)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Boilers (Tubular)

Bartlett & Snow Co., C. O., Cleveland, O.

Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.

Carroll-Porter Boiler & Tank Co., Empire Bldg., Pittsburg, Pa.

Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Kewanee Boiler Co., Kewanee, Ill.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Lombard Iron Works & Supply Co., Augusta, Ga.

Morris & Co., I. P., Philadelphia, Pa.

Petroleum Iron Works Co., The, Sharon, Pa.

Ransome Concrete Machinery Co., Dunellen, N. J.

Sharon Boiler Works, Sharon, Pa.

Shaw Co., Willis, 171 La Salle St., Chicago, Ill.

Smith & Son Co., Samuel, Paterson, N. J.

Struthers-Wells Co., Warren, Pa.

Sturtevant Mill Co., Harrison Sq., Boston, Mass.

Tippett & Wood, Phillipsburg, N. J.

Traylor Engineering Co., 2 Rector St., N. Y.

Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Boilers (Water-Tube)

Babcock & Wilcox Co., 85 Liberty St., N. Y.

Carroll-Porter Boiler & Tank Co., Empire Bldg., Pittsburg, Pa.

Edge Moor Iron Co., Edge Moor, Delaware.

Granger Co., A. D., 90 West St., N. Y.

Heine Safety Boiler Co., 421 Olive St., St. Louis, Mo.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Sharon Boiler Works, Sharon, Pa.

Traylor Engineering Co., 2 Rector St., N. Y.

Bolt and Nut Machinery

Scully Steel & Iron Co., Chicago, Ill.

Bolts

Scully Steel & Iron Co., Chicago, Ill.

Bolts (Expansion, Toggle, Etc.)

Belmont Iron Works, 22d St., & Washington Ave., Philadelphia, Pa.

Lombard Iron Works & Supply Co., Augusta, Ga.

Bolts (Machine)

Belmont Iron Works, 22d St., & Washington Ave., Philadelphia, Pa.

Mention the "Record" when writing.

Cleveland City Forge & Iron Co., Cleveland, O.
Pittsburgh Mfg. Co., Pittsburgh, Pa.

Bonds (Contractors')

Brown, Jr., A. S., 85 Water St., Boston, Mass.
Ritch, William T., "Inc.," 1123 B'way N. Y.

Books (Engineering and Technical)

American School of Correspondence, Chicago, Ill.

McGraw Publishing Co., 239 West 39th St., New York.

Van Nostrand & Co., D., 23 Murray St., N. Y.
Wiley & Sons, John, 43-45 E. 19th St., N. Y.

Books (Meter)

Buffalo Meter Co., 290-296 Terrace, Buffalo, N. Y.

Boosters

C. & C. Electric Co., The, Garwood, N. J.

Boots

Rubberhide Co., Essex Bldg., Boston, Mass.

Boots (Elevator)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Boxes (Annealing)

McNeil & Bro. Co., James, Pittsburg, Pa.

Boxes (Dump)

Black Mfg. Co., 124-128 E. Ohio St., Chicago, Ill.

Boxes (Take-Up)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Braces (Extensible)

Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.

Brackets and Cross-Arms

Grosche & Co., Bruno, 23 Jones Lane, N. Y.

Insley Iron Works, Indianapolis, Ind.

Johns-Manville Co., H. W., 100 Wm. St., N.Y.

Brick and Tile

Bayer, J. C., Front & Market Sts., Portland, Oregon.

McAvoy Vitrified Brick Co., 345 Arch St., Philadelphia, Pa.

Metropolitan Paving Brick Co., Canton, Ohio.

Patton Clay Mfg. Co., Patton, Pa.

Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.

Robinson Clay Product Co. of New York, Flatiron Bldg., New York.

Brick (Building and Sewer)

Patton Clay Mfg. Co., Patton, Pa.

Brick Machinery

Green Fuel Economizer Co., Matteawan, N.Y.

Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.

Mention the "Record" when writing.

Peerless Brick Machine Co., 30 N. 6th St., Minneapolis, Minn.

Raymond Bros. Impact Pulverizer Co., 143 Laflin St., Chicago, Ill.

Reliance Machine & Tool W'ks, St. Louis, Mo.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.

Brick (Paving)

Patton Clay Mfg. Co., Patton, Pa.

Bridge Builders

Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block, Chicago, Ill.

Terry & Tench Co., "Inc.," 131st St. and Lexington Ave., New York.

Bridge Builders (Steel)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Bridge Engineers

Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block, Chicago, Ill.

Bridge Foundation

Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.

Bridge (Machinery)

Scully Steel & Iron Co., Chicago, Ill.

Bridge Operating Machinery

Mead-Morrison Mfg. Co., Cambridge, Mass.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block, Chicago, Ill.

Bridge, Pier and Building Foundations (See Contractors)

Clinton Bridge & Iron Works, Clinton, Ia.

Cullen-Friestedt Co., 1526 Tribune Bldg., Chicago, Ill.

Foundation Co., The, 115 B'way, New York.

Hydrex Felt & Engineering Co., 120 Liberty St., New York.

Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.

Memphis Bridge Co., Memphis, Tenn.

Nims Concrete Machinery, Philadelphia, N. Y.

Pneumatic Caisson Co., Troy, N. Y.

Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.

Raymond Concrete Pile Co., 135 Adams St., Chicago, Ill.

Scully Foundation & Transportation Co., John T., 84 First St., Cambridge, Mass.

Bridge Railings

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.

Stewart Iron Works Co., The, Cincinnati, O.

Mention the "Record" when writing.

Bridges

Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block, Chicago, Ill.

Bridges (Bascule)

American Bridge Co. of New York, 42 B'way, New York.

Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.

Page & Shnable, 1002 Security Bldg., Chicago.

Pennsylvania Steel Co., Philadelphia, Pa.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block, Chicago, Ill.

Whitehead & Kales Iron W'ks, Detroit, Mich.

Bridges (Concrete)

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.

Baltimore Bridge Co., Bush St. and B. & O. R.R., Baltimore, Md.

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

Clinton Bridge & Iron Works, Clinton, Ia.

Concrete-Steel Engineering Co., Park Row Bldg., New York.

Cullen-Friestedt Co., 1526 Tribune Bldg., Chicago, Ill.

Ferro-Concrete Construction Co., The, Richmond and Harriet Sts., Cincinnati, Ohio.

Hennebique Construction Co., 1170 B'way, New York.

Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.

Kosmos Portland Cement Co., "Inc.," 614-616 Paul Jones Bldg., Louisville, Ky.

Maxwell Concrete Steel Co., 516 Penobscot Bldg., Detroit, Mich.

Memphis Bridge Co., Memphis, Tenn.

Nims Concrete Machinery, Philadelphia, N. Y.

Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.

Bridges, Roofs, etc.

American Bridge Co. of New York, 42 B'way, New York.

Atlantic Gulf & Pacific Co., Park Row Bldg., New York.

Baltimore Bridge Co., Bush St. and B. & O. R.R., Baltimore, Md.

Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.

Belmont Iron Works, 22d St. and Washington Ave., Phila., Pa.

Berlin Construction Co., Berlin, Conn.

Boston Bridge Works, 47 Winter St., Boston.

Champion Bridge Co., Wilmington, Ohio.

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

Mention the "Record" when writing.

Climax Road Machine Co., Marathon, N. Y.
 Clinton Bridge & Iron Works, Clinton, Ia.
 Cullen-Friestedt Co., 1526 Tribune Bldg., Chicago, Ill.
 Decatur Bridge Co., Decatur, Ill.
 Eastern Bridge & Structural Co., Worcester, Mass.
 Eichleay, Jr., Co., John, Pittsburg, Pa.
 Giesel Construction Co., 620 Chestnut St., St. Louis, Mo.
 Hydrex Felt & Engineering Co., 120 Liberty St., New York.
 Insley Iron Works, Indianapolis Ind.
 Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.
 Kenwood Bridge Co., 1416 First National Bank Bldg., Chicago, Ill.
 Memphis Bridge Co., Memphis, Tenn.
 Milwaukee Bridge Co., Milwaukee, Wis.
 Noelke-Richards Iron W'ks, Indianapolis, Ind.
 Pennsylvania Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., Philadelphia, Pa.
 Phoenix Bridge Co., The, 410 Walnut St., Philadelphia, Pa.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B., Pittsburg, Pa.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block, Chicago, Ill.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia, Pa.
 Snare & Triest Co., The, 143 Liberty St., N. Y.
 Southern Bridge Co., Birmingham, Ala.
 Strauss Bascule & Concrete Bridge Co., 904 Fort Dearborn Bldg., Chicago, Ill.
 Tippet & Wood, Phillipsburg, N. J.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Whitehead & Kales Iron W'ks, Detroit, Mich.
 Wisconsin Bridge & Iron Co., Milwaukee, Wis.

Bridges (Suspension)

American Bridge Co. of New York, 42 B'way, New York.
 Berlin Construction Co., Berlin, Conn.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 Pennsylvania Steel Co., The, Philadelphia, Pa.
 Roebling's Sons Co., John A., Trenton, N. J.

Bronze Founders

American District Steam Co., Lockport, N. Y.
 Dake Engine Co., Grand Haven, Mich.
 Lombard Iron Works & Supply Co., Augusta, Ga.
 Lunkenheimer Co., Cincinnati, Ohio.
 Morris & Co., I. P., Philadelphia, Pa.

Mention the "Record" when writing.

Noelke-Richards Iron W'ks, Indianapolis, Ind.
Schreiber & Sons Co., L., Cincinnati, Ohio.

Buckets

Bergen Point Iron Works, 149 B'way, N. Y.
Williams Co., G. H., Cleveland, Ohio.

Buckets (Bottom Dumping)

Cyclopean Iron Works Co., The, 402-404 Claremont Ave., Jersey City, N. J.

Buckets (Clam Shell)

Brown Hoisting Machinery Co., The, 4403 St. Clair Ave., Cleveland, Ohio.
Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.
Cleveland Crane & Car Co., Wickliffe, Ohio.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.
Kiesler Co., The, 82 Pratt St., Chicago, Ill.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Northern Engineering Works, Detroit, Mich.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Reliance Machine & Tool W'ks, St. Louis, Mo.
Shaw Co., Willis, 171 La Salle St., Chicago, Ill.

Buckets (Concrete)

Brown Hoisting Machinery Co., The, 4403 St. Clair Ave., Cleveland, Ohio.
Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
Chain Belt Co., Milwaukee, Wis.
Chandler, Geo. M., 42-9 Illinois St., Indianapolis, Ind.
Cleveland Crane & Car Co., Wickliffe, Ohio.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Cyclopean Iron Works Co., The, 402-404 Claremont Ave., Jersey City, N. J.
East Jersey Pipe Co., 90 West St., New York.
Hayward Co., The, 97 Cedar St., New York.
Insley Iron Works, Indianapolis, Ind.
Kiesler Co., The, 82 Pratt St., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
Northern Engineering Works, Detroit, Mich.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Ransome Concrete Machinery Co., Dunellen, N. J.
Reliance Machine & Tool W'ks, St. Louis, Mo.
Stuebner Iron Works, G. L., foot of 12th St., Long Island City, N. Y.
Union Iron Works, The, Hoboken, N. J.
Wiener Co., Ernst, 168 Morris Bldg., N. Y.
Youngstown Car Mfg. Co., Youngstown, O.

Mention the "Record" when writing.

Buckets (Dredging and Excavating)

Brown Hoisting Machinery Co., The, 4403 St. Clair Ave., Cleveland, Ohio.
Bucyrus Co., The, South Milwaukee, Wis.
Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.
Cleveland Crane & Car Co., Wickliffe, Ohio.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Hayward Co., The, 97 Cedar St., New York.
Kiesler Co., The, 82 Pratt St., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Page & Shnable, 1002 Security Bldg., Chicago.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.
Reliance Machine & Tool W'ks, St. Louis, Mo.
Union Iron Works, The, Hoboken, N. J.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.
Wetherill Bros. Machine Co., Chester, Pa.
Wonham-Magor Engineering Works, 29 B'way, New York.

Buckets (Dumping)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Broderick & Bascom Rope Co., St. Louis, Mo.
Brown Hoisting Machinery Co., The, 4403 St. Clair Ave., Cleveland, Ohio.
Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
East Jersey Pipe Co., 90 West St., New York.
Hayward Co., The, 97 Cedar St., New York.
Insley Iron Works, Indianapolis, Ind.
Kiesler Co., The, 82 Pratt St., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
Northern Engineering Works, Detroit, Mich.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Reliance Machine & Tool W'ks, St. Louis, Mo.
Stuebner Iron Works, G. L., foot of 12th St., Long Island City, N. Y.
Union Iron Works, The, Hoboken, N. J.
Whitehead & Kales Iron W'ks, Detroit, Mich.
Wiener Co., Ernst, 168 Morris Bldg., N. Y.
Wonham-Magor Engineering Works, 29 B'way, New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Buckets (Elevator)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Mention the "Record" when writing.

Buckets (Excavating)

Stuebner Iron Works, G. L., foot of 12th St.,
Long Island City, N. Y.

Buckets (Orange Peel)

Brown Hoisting Machinery Co., The, 4403 St.
Clair Ave., Cleveland, Ohio.

Chandler, Geo. M., 42-9 N. Illinois St., In-
dianapolis, Ind.

Contractors Supply & Equipment Co., 300 Old
Colony Bldg., Chicago, Ill.

Hayward Co., The, 97 Cedar St., New York.

Hough Co., William B., 1336-7 Monadnock
Block, Chicago, Ill.

Kiesler Co., The, 82 Pratt St., Chicago, Ill.

Reliance Machine & Tool W'ks, St. Louis, Mo.

Shaw Co., Willis, 171 La Salle St., Chicago, Ill.

Building Blocks

Ashland Steel Range & Mfg. Co., The, Ash-
land, Ohio.

Hydraulic Concrete Mach. Co., Buffalo, N. Y.

Patton Clay Mfg. Co., Patton, Pa.

N. Y. State Sewer Pipe Co., Rochester, N. Y.

Robinson Clay Product Co., of N. Y. Flat Iron
Bldg., New York.

Building-Block Machinery

Ashland Steel Range & Mfg. Co., The, Ash-
land, Ohio.

Hydraulic Concrete Machine Co., Buffalo, N. Y.

Peerless Brick Machine Co., 30 North 6th
St., Minneapolis, Minn.

Standard Sand & Machine Co., Cleveland, O.

Sturtevant Mill Co., Harrison Sq., Boston,
Mass.

Building Foundation

Jackson, George W., "Inc.," 169-179 W. Jack-
son Boulevard, Chicago, Ill.

Building Material (See Also Ce- ment)

Chicago House Wrecking Co., West 35th &
Iron Sts., Chicago, Ill.

Concrete-Steel Engineering Co., Park Row
Bldg., N. Y.

Decatur Bridge Co., Decatur, Ill.

General Fireproofing Co., Youngstown, O.

Johns-Manville Co., H. W., 100 William St.,
New York City.

Lawrence Cement Co., 1 B'way, New York.

National Fire Proofing Co., 115 Adams St.,
Chicago, Ill.

Penna. Cement Co., 26 Cortlandt St., N. Y.

Portland Iron & Steel Co., Board of Trade
Building, Boston, Mass.

Potomac Dredging Co., 24-25 Home Life Bldg.,
Washington, D. C.

Robinson Clay Product Co., of N. Y. Flat
Iron Bldg., New York.

Mention the "Record" when writing.

Standard Concrete Steel Co., 31st, 32d Sts.,
East River, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Warner Co., Charles, Wilmington, Del.
Warren-Ehret Co., 1203 Land Title Bldg., Phila-
delphia, Pa.

Building Papers

Barrett Mfg. Co., New York & Chicago.
Bayer, J. C., Front & Market Sts., Portland,
Ore.
Chicago House Wrecking Co., West 35th &
Iron Sts., Chicago, Ill.
Hydrex Felt & Engineering Co., 120 Liberty
St., New York.
Johns-Manville Co., H. W., 100 William St.
New York City.
Warren-Ehret, Co., 1204 Land Title Bldg., Phila-
delphia, Pa.

Building Reports

Dodge Co., F. W., 11 East 24th St., N. Y.

Buildings

Riverside Bridge Co., Martins Ferry, O.

Buildings (Steel, Mill, Etc.)

Baltimore Bridge Co., Bush St. & B. & O. R.
R., Baltimore, Md.

Bulldozers

Scully Steel & Iron Co., Chicago, Ill.

Bumping Posts

Indianapolis Switch & Frog Co., Springfield, O.

Cables (Drilling)

Leschen & Sons Rope Co., A., St. Louis, Mo.

Cables (Manila)

American Mfg. Co., 65 Wall St., N. Y.

Cableways

Broderick & Bascom Rope Co., St. Louis, Mo.
Brown Hoisting Machinery Co., 4403 St. Clair
Ave., Cleveland, Ohio.
Carson Trench Machine Co., 16 Dorrance St.,
Boston, Mass.
Chandler, Geo. M., 42-9 North Illinois St.,
Indianapolis, Ind.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Hayward Co., The, 97 Cedar St., N. Y.
International Electric & Engineering Co., 148
Chamber St., New York.
Kiesler Co., The, 82 Pratt St., Chicago, Ill.
Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Mead-Morrison Mfg. Co., Cambridge, Mass.
New York Cableway & Engineering Co., 2
Rector St., New York.
Reliance Machine & Tool Works, St. Louis, Mo.
Roebbling's Sons Co., John A., Trenton, N. J.

Mention the "Record" when writing.

Shaw Co., Willis, 171 La Salle St., Chicago.
Wiener Company, Ernst, 168 Morris Bldg., N.Y.
Youngstown Car Mfg. Co., Youngstown, O.

Caisson Cylinders

East Jersey Pipe Co., 90 West St., N. Y.
Graver Tank W'ks, Wm., East Chicago, Ind.
Jackson, George W., "Inc.," 169-179 West
Jackson Boulevard, Chicago, Ill.
Petroleum Iron Works Co., The, Sharon, Pa.
Pneumatic Caisson Co., Troy, N. Y.
Riter-Conley Mfg. Co., Pittsburg, Pa.

Caisson, Cylinders (Wooden)

Baltimore Cooperage Co., Baltimore, Md.
Lombard Iron W'ks & Supply Co., Augusta, Ga.

Caisson Foundations

Jackson, George W., "Inc.," 169-179 West
Jackson Boulevard, Chicago, Ill.
O'Rourke Engineering Construction Co., 345
Fifth Ave., New York.
Pneumatic Caisson Co., Troy, N. Y.
Wemlinger Steel Piling Co., 11 B'way, N. Y.

Caissons

East Jersey Pipe Co., 90 West St., N. Y.
Foundation Co., The, 115 B'way, N. Y.
Jackson, George W., Inc., 169-179 W. Jackson
Boulevard, Chicago, Ill.
O'Rourke Engineering Construction Co., 345
Fifth Ave., New York.
Petroleum Iron Works Co., The, Sharon, Pa.
Pneumatic Caisson Co., Troy, N. Y.
Wemlinger Steel Piling Co., 11 B'way, N. Y.
Wood & Co., R. D., 400 Chestnut St., Phila., Pa.

Calking Tools

Scully Steel & Iron Co., Chicago, Ill.

Candle (Wicking)

Leschen & Sons Rope Co., A., St. Louis, Mo.

Canvas Waterproofing

Elaterite Paint & Mfg. Co., Des Moines, Ia.

Car Barns

Riverside Bridge Co., Martins Ferry, Ohio.

Car Couplers, Fenders, Parts, Fittings and Car Wheels

Broderick & Bascom Rope Co., St. Louis, Mo.
Douglas, Geo. B., 29 B'way, New York.
Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.
Prosser & Sons, Thos. ("Krupp"), 15 Gold St.,
New York.
Wiener Company, Ernst, 168 Morris Bldg., N.Y.
Wonham-Magor Engineering Works, 29 B'way,
New York.
Youngstown Car Mfg., Co., Youngstown, O.

Car Heating and Lighting

Johns-Manville Co., H. W., 100 Wm. St., N. Y.

Mention the "Record" when writing.

Car Movers

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Car Movers and Pushers

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Car Replacers

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Carbolineum

Carbolineum Wood Preserving Co., 60 Wall St., New York.

Grosche & Co., Bruno, 23 Jones Lane, N. Y.

McKinney Co., C. S., 60 Wall St., N. Y.

Cars

Bergen Point Iron Works, 149 B'way, N. Y.

Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.

Continental Car & Equipment Co., 17 Battery Place, New York.

Davenport Locomotive Works, Davenport, Ia.

Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.

McCoy Co., Henry J., 65-67 Dey St., N. Y.

Mead-Morrison Mfg., Co., Cambridge, Mass.

Traylor Engineering Co., 2 Rector St., N. Y.

Union Iron Works, The, Hoboken, N. J.

Wiener Company, Ernst, 168 Morris Bldg., N. Y.

Wonham-Magor Engineering Works, 29 B'way, New York.

Youngstown Car Mfg. Co., Youngstown, O.

Cars (Ballast)

Continental Car & Equipment Co., 17 Battery Place, N. Y.

Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.

Union Iron Works, The, Hoboken, N. J.

Wiener Company, Ernst, 168 Morris Bldg., N. Y.

Wonham-Magor Engineering Works, 29 B'way, New York.

Youngstown Car Mfg. Co., Youngstown, O.

Cars (Bridge Gang)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Cars (Coal)

Wiener Company, Ernst, 168 Morris Bldg., N. Y.

Cars (Concrete)

Continental Car & Equipment Co., 17 Battery Place, New York.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.

Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Mention the "Record" when writing.

Stuebner Iron Works, G. L., Foot of 12th St.,
Long Island City, New York.
Union Iron Works, The, Hoboken, N. J.
Wiener Company, Ernst, 168 Morris Bldg., N.Y.
Wonham-Magor Engineering Works, 29 B'way,
New York.
Youngstown Car Mfg., Co., Youngstown, O.

Cars (Derrick, Self-Propelling)

Byers Machine Co., The John F., Ravenna, O.

Cars (Dumping)

Allis-Chalmers Co., Milwaukee, Wis.
Bacon, Earle C., Havemeyer Bldg., N. Y.
Continental Car & Equipment Co., 17 Battery
Pl., New York.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
Shaw Co., Willis, 171 La Salle St., Chicago, Ill.
Traylor Engineering Co., 2 Rector St., N. Y.
Union Iron Works, The, Hoboken, N. J.
Wiener Co., Ernst, 168 Morris Bldg., N. Y.
Wonham-Magor Engineering Works, 29 B'way,
New York.
Youngstown Car Mfg. Co., Youngstown, O.

Cars (Elevator)

Darby & Sons Co., "Inc.," Edw., Phila., Pa.

Cars (Flat)

Continental Car & Equipment Co., 17 Battery
Pl., New York.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
Northern Engineering Works, Detroit, Mich.
Union Iron Works, The, Hoboken, N. J.
Wiener Company, Ernst, 168 Morris Bldg., N.Y.
Wonham-Magor Engineering Works, 29 B'way,
New York.
Youngstown Car Mfg. Co., Youngstown, O.

Cars (Gasoline Motor)

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Cars (Hand and Push)

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Cars (Industrial)

Chicago House Wrecking Co., West 35th &
Iron Sts., Chicago, Ill.
Continental Car & Equipment Co., 17 Battery
Place, N. Y.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Mention the "Record" when writing.

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.
 Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Northern Engineering Works, Detroit, Mich.
 Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, New York.
 Union Iron Works, The, Hoboken, N. J.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wiener Company, Ernst, 168 Morris Bldg., N.Y.
 Wonham-Magor Engineering Works, 29 B'way, New York.
 Youngstown Car Mfg. Co., Youngstown, O.

Cars (Inspection)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Cars (Mining)

Allis-Chalmers Co., Milwaukee, Wis.
 Bacon, Earle C., Havemeyer Bldg., N. Y.
 Continental Car & Equipment Co., 17 Battery Pl., New York.
 Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
 Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 Northern Engineering Works, Detroit, Mich.
 Power & Mining Machinery Co., Cudahy, Wis.
 Traylor Engineering Co., 2 Rector St., N. Y.
 Union Iron Works, The, Hoboken, N. J.
 Wiener Company, Ernst, 168 Morris Bldg., N.Y.
 Wonham-Magor Engineering Works, 29 B'way, New York.
 Youngstown Car Mfg. Co., Youngstown, O.

Cars, Second-Hand (See Second-Hand Machinery)

Continental Car & Equipment Co., 17 Battery Place, New York.
 Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
 Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
 Shaw Co., Willis, 171 La Salle St., Chicago, Ill.

Cars (Steam-Shovel)

Continental Car & Equipment Co., 17 Battery Place, New York.
 Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
 Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 Wiener Company, Ernst, 168 Morris Bldg., N. Y.
 Wonham-Magor Engineering Works, 29 B'way, New York.
 Youngstown Car Mfg., Co., Youngstown, O.

Mention the "Record" when writing.

Cars (Tank)

Graver Tank Works, Wm., East Chicago, Ind.
Wiener Co., Ernst, 168 Morris Bldg., N. Y.
Wonham-Magor Engineering Works, 29 B'way,
New York.

Cars (Tower)

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Cars (Velocipede)

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Cars (Wrecking and Ditching)

Bucyrus Co., The, South Milwaukee, Wis.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Carts and Wagons (Ash and Dump)

Builders Iron Foundry, 9 Coddling St., Providence, R. I.
Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.
Climax Road Machine Co., Marathon, N. Y.
Columbia Wagon Co., Columbia, Pa.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Indiana Road Machine Co., Fort Wayne, Ind.
Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburgh, Pa.
Pittsburg Tubular Steel Whiffletree Co., Pittsburgh, Pa.
Troy Wagon Works Co., The, Troy, Ohio.
Wiener Co., Ernst, 168 Morris Bldg., N. Y.

Carts (Concrete)

Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Hough Co., Wm. B., 1336-7 Monadnock Block, Chicago, Ill.
Koehring Machine Co., Milwaukee, Wis.
Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburgh, Pa.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Ransome Concrete Machinery Co., Dunellen, N. J.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Stuebner Iron Works, G. L., foot of 12th St., Long Island City, N. Y.
Wiener Co., Ernst, 168 Morris Bldg., N. Y.

Castings (Cast-Iron)

Lynchburg Foundry Co., Lynchburg, Va.
McWane Pipe Works, 220 B'way, New York.

Castings (Grey Iron)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Mention the "Record" when writing.

Castings (Iron)

- American Bridge Co. of New York, 42 B'way,
New York.
American Cast-Iron Pipe Co., Birmingham,
Ala.
Belmont Iron Works, 22d St. and Washington
Ave., Philadelphia, Pa.
Chain Belt Co., Milwaukee, Wis.
Dake Engine Co., Grand Haven, Mich.
Dimmick Pipe Co., Birmingham, Ala.
Dobbie Foundry & Machine Co., Niagara
Falls, N. Y.
Donaldson Iron Co., Emaus, Lehigh Co., Pa.
Douglas, Geo. B., 29 B'way, New York.
Douglas, W. & B., Middletown, Conn.
Fox & Co., John, 253 B'way, New York.
Green Engineering Co., Commercial National
Bank Bldg., Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Lombard Iron Works & Supply Co., Augusta,
Ga.
Lunkenheimer Co., Cincinnati, Ohio.
Massillon Iron & Steel Co., Massillon, Ohio.
Mesker & Bro., 421 So. 6th St., St. Louis, Mo.
Morris & Co., I. P., Philadelphia, Pa.
Noelke-Richards Iron W'ks, Indianapolis, Ind.
Pennsylvania Steel Co., The, Philadelphia, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Raquette Foundry & Supply Co., Massena,
N. Y.
Robins Conveying Belt Co., Passaic, N. J.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Union Iron Works, The, Hoboken, N. J.
U. S. Cast Iron Pipe & Foundry Co., 71
B'way, New York.
U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.
Valley Iron Works, Williamsport, Pa.
Williamson Bros. Co., Aramingo Ave. and
Cumberland St., Philadelphia, Pa.
Wood & Co., R. D., 400 Chestnut St., Philadel-
phia, Pa.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Castings (Machinery)

- Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Castings (Malleable-Iron)

- Chisholm & Moore Mfg. Co., Cleveland, Ohio.
Janney, Steinmetz & Co., Philadelphia, Pa.

Castings (Railroad)

- Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Castings (Steel)

- American Bridge Co. of New York, 42 B'way,
New York.

Mention the "Record" when writing.

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.
Douglas, Geo. B., 29 B'way, New York.
Pennsylvania Steel Co., The, Philadelphia, Pa.
Union Iron Works, The, Hoboken, N. J.

Cattle Guards (Steel)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Cattle Guards (Wood)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Ceiling and Siding (Iron and Steel)

Scully Steel & Iron Co., Chicago, Ill.

Ceiling (Sheet Steel)

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Cement

Alma Cement Co., Wellston, Ohio.
Alpha Portland Cement Co., Easton, Pa.
Alsens Portland Cement Co., 45 B'way, N. Y.
American Cement Co., 603-10 Pennsylvania Bldg., Philadelphia, Pa.
Atlas Portland Cement Co., The, 30 Broad St., New York.
Cayuga Lake Cement Co., Ithaca, N. Y.
Chicago House Wrecking Co., W. 35th and Iron Sts., Chicago, Ill.
Chicago Portland Cement Co., Chicago Stock Exchange, Chicago, Ill.
Clow & Sons, James B., Chicago, Ill.
Connelly Construction Co., El Reno, Okla.
Consolidated Rosendale Cement Co., 26 Cortlandt St., New York.
Coplay Cement & Mfg. Co., Pennsylvania Bldg., Philadelphia, Pa.
Dexter Portland Cement, York Ave., 4th and Callowhill Sts., Philadelphia, Pa.
Douglas, Geo. B., 29 B'way, New York.
Edison Portland Cement Co., The, 1133 B'way, New York.
Fredenburg & Lounsbury, 289 4th Ave., N. Y.
French & Co., Samuel H., York Ave., 4th and Callowhill Sts., Philadelphia, Pa.
Glens Falls Portland Cement Co., 156 Fifth Ave., New York.
Hartranft Cement Co., Wm. G., Real Estate Trust Bldg., Philadelphia, Pa.
Ironton Portland Cement Co., Ironton, Ohio.
Johns-Manville Co., H. W., 100 Wm. St., N. Y.
Kosmos Portland Cement Co., "Inc.," 614-616 Paul Jones Bldg., Louisville, Ky.
Lawrence Cement Co., 1 B'way, N. Y.
Lehigh Portland Cement Co., Allentown, Pa.
Marquette Cement Mfg. Co., Chicago, Ill.
National Fire Proofing Co., 115 Adams St., Chicago, Ill.

Mention the "Record" when writing.

Omega Portland Cement Co., Jonesville, Mich.
 Peninsula Portland Cement Co., Jackson, Mich.
 Pennsylvania Cement Co., 26 Cortlandt St.,
 New York.
 Portland Iron & Steel Co., Board of Trade
 Bldg., Boston, Mass.
 Potomac Dredging Co., 24-25 Home Life Bldg.,
 Washington, D. C.
 Robinson Clay Product Co. of New York,
 Flatiron Bldg., New York.
 St. Louis Portland Cement Co., St. Louis, Mo.
 Standard Concrete Steel Co., 31st and 32d Sts.,
 East River, New York.
 Superior Portland Cement Co., Charleston, W.
 Va.
 Trussed Concrete Steel Co., Detroit, Mich.
 Universal Portland Cement Co., Chicago, Ill.
 Upton, F. R., 9 Clinton St., Newark, N. J.
 Vulcanite Portland Cement Co., Land Title
 Bldg., Philadelphia, Pa.
 Warner Co., Charles, Wilmington, Del.
 Warren-Ehret Co., 1204 Land Title Bldg., Phil-
 adelphia, Pa.
 Winslow Co., E. J., 138 Jackson Boulevard,
 Chicago, Ill.
 Wolverine Portland Cement Co., Coldwater,
 Mich.

Cement Block Machines

Ashland Steel Range & Mfg. Co., The, Ash-
 land, Ohio.
 Century Cement Machine Co., 186 W. Main
 St., Rochester, N. Y.
 Hydraulic Concrete Mach. Co., Buffalo, N. Y.
 Peerless Brick Machine Co., 30 N. 6th St.,
 Minneapolis, Minn.
 Standard Sand & Machine Co., Cleveland, O.

Cement Brick Machines

Peerless Brick Machine Co., 30 N. 6th St.,
 Minneapolis, Minn.

Cement Machinery

Allis-Chalmers Co., Milwaukee, Wis.
 Ashland Steel Range & Mfg. Co., The, Ash-
 land, Ohio.
 Atlas Dryer Co., The, Cleveland, Ohio.
 Austin Manufacturing Co., Chicago, Ill.
 Bacon, Earle C., Havemeyer Bldg., New York.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Bradley Pulverizer Co., 92 State St., Boston.
 Chandler, Geo. M., 42-9 N. Illinois St., In-
 dianapolis, Ind.
 Connelly Construction Co., El Reno, Okla.
 Cresson Co., Geo. V., Philadelphia, Pa.
 Cummer & Sons Co., F. D., 413 Arcade, Cleve-
 land, Ohio.
 Dunning, W. D., Water St., Syracuse, N. Y.
 Foote Concrete Machinery Co., 184 La Salle
 St., Chicago, Ill.

Mention the "Record" when writing.

Fuller Engineering Co., Allentown National Bank Bldg., Allentown, Pa.
 Kent Mill Co., 170 B'way, New York.
 Koehring Machine Co., Milwaukee, Wis.
 Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.
 Lehigh Car, Wheel & Axle Works, Catasauqua, Pa.
 Peerless Brick Machine Co., 30 N. 6th St., Minneapolis, Minn.
 Power & Mining Machinery Co., Cudahy, Wis.
 Prosser & Sons, Thos. ("Krupp"), 15 Gold St., New York.
 Raymond Bros. Impact Pulverizer Co., 143 Laflin St., Chicago, Ill.
 Smidth & Co., F. L., 39-41 Cortlandt St., N. Y.
 Standard Sand & Machine Co., Cleveland, O.
 Sturtevant Mill Co., Harrison Sq., Boston.
 Traylor Engineering Co., 2 Rector St., N. Y.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.
 Wilcox Co., W. H., Binghamton, N. Y.

Cement Mixers

Ashland Steel Range & Mfg. Co., The, Ashland, Ohio.
 Chain Belt Co., Milwaukee, Wis.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
 Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.
 Koehring Machine Co., Milwaukee, Wis.
 Municipal Engineering & Contracting Co., Jackson Boulevard and Mich. Ave., Chicago.
 Nims Concrete Machinery, Philadelphia, N. Y.
 Shaw Co., Willis, 171 La Salle St., Chicago, Ill.
 Standard Sand & Machine Co., Cleveland, O.
 Wilcox Co., W. H., Binghamton, N. Y.
 Youngstown Car Mfg. Co., Youngstown, Ohio.

Cement (Stainless White)

Warner Co., Charles, Wilmington, Del.

Cement Testing Machines

Ransome Concrete Machinery Co., Dunellen, N. J.

Cement Walk Tools

Century Cement Machine Co., 186 W. Main St., Rochester, N. Y.
 Connelly Construction Co., El Reno, Okla.
 Perrin, Seamans & Co., 57 Oliver St., Boston.

Cement Waterproofing

Elaterite Paint & Mfg. Co., Des Moines, Ia.
 Grosche & Co., Bruno 23 Jones Lane, N. Y.
 Hydrex Felt & Engineering Co., 120 Liberty St., New York.
 Johns-Manville Co., H. W., 100 Wm. St., N.Y.
 Standard Asphalt & Rubber Co., 944 First National Bank Bldg., Chicago, Ill.

Mention the "Record" when writing.

Warner Co., Charles, Wilmington, Del.
Warren-Ehret Co., 1204 Land Title Bldg.,
Philadelphia, Pa.
Winslow Co., E. J., 138 Jackson Boulevard,
Chicago, Ill.

Cement Weighing Machines

Richardson Scale Co., 3 Park Row, New York.

Centers, Collapsible (Common)

Blaw Collapsible Steel Centering Co., West-
inghouse Bldg., Pittsburg, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.

Centers (Steel)

Blaw Collapsible Steel Centering Co., West-
inghouse Bldg., Pittsburg, Pa.
Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.

Centrifugal Air Compressors (Mo- tors and Steam Turbine-Driven)

General Electric Co., Schenectady, N. Y.

Chains (Common)

Chain Belt Co., Milwaukee, Wis.
Indianapolis Switch & Frog Co., Springf'd, O.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lombard Iron Works & Supply Co., Augusta,
Ga.

Patterson Co., W. W., Pittsburg, Pa.

Reading Crane & Hoist Works, Reading, Pa.

Chains (Sprocket)

Chain Belt Co., Milwaukee, Wis.
Lombard Iron Works & Supply Co., Augusta,
Ga.

Morse Chain Co., Ithaca, N. Y.

Standard Sand & Machine Co., Cleveland, O.

Webster Mfg. Co., 1075 W. 15th St., Chicago,
Ill.; 88-90 Reade St., New York.

Channelers

Sullivan Machinery Co., Railway Exchange,
Chicago, Ill.

Channelers (Air, Electric, Air or Steam)

Ingersoll-Rand Co., 11 Broadway, New York.

Chemical Engines

Kanawha Chemical Engine Mfg. Co., Charles-
ton, W. Va.

Chemical Engines (Stationary Ap- paratus)

Kanawha Chemical Engine Mfg. Co., Charles-
ton, W. Va.

Chemists

McKenna, Chas. F., Hudson Terminal Bldg.,
New York.

Chimneys

Granger Co., A. D., 90 West St., N. Y.

Kellogg Co., M. W., 143 Liberty St., N. Y.

Mention the "Record" when writing.

Chimneys (Concrete)

- Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
Custodis Chimney Construction Co., Alphons, Bennett Bldg., New York.
Hennebique Construction Co., 1170 B'way, New York.
Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.
Weber Steel Concrete Chimney Co., Marquette Bldg., Chicago, Ill.

Chimneys (Iron and Steel)

- Scully Steel & Iron Co., Chicago, Ill.

Chimneys or Perforated Radial Bricks

- Custodis Chimney Construction Co., Alphons, Bennett Bldg., New York.
Heinicke, H. R., 147 Fourth Ave., N. Y.

Chimneys (Steel)

- Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.
Graver Tank Works, Wm., East Chicago, Ind.
McNeil & Bro., Co., James, Pittsburg, Pa.
Petroleum Iron Works Co., The, Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Schreiber & Son Co., L., Cincinnati, Ohio.
Struthers-Wells Co., Warren, Pa.
Tippett & Wood, Phillipsburg, N. J.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Chimney Tops (Vitrified Clay)

- Patton Clay Mfg. Co., Patton, Pa.

Clamps (Bridge)

- Leschen & Sons Rope Co., A., St. Louis, Mo.
Riverside Bridge Co., Martins Ferry, Ohio.

Clamps (Wire-Rope)

- Leschen & Sons Rope Co., A., St. Louis, Mo.
Scully Steel & Iron Co., Chicago, Ill.

Cleaners (Flue)

- Scully Steel & Iron Co., Chicago, Ill.

Clevis Nuts

- Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
Cleveland City Forge & Iron Co., Cleveland, O.
Indianapolis Switch & Frog Co., Springfield, O.
Pittsburg Mfg. Co., Pittsburg Pa.

Clips (Wire-Rope)

- American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.

Clutches (Friction)

- Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Mention the "Record" when writing.

Coal and Ore-Handling Machinery

Allis-Chalmers Co., Milwaukee, Wis.
Atlas Dryer Co., The, Cleveland, Ohio.
Bacon, Earle C., Havemeyer Bldg., N. Y.
Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburgh, Pa.
Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Philadelphia, Pa.
Hayward Co., The, 97 Cedar St., New York.
Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburgh, Pa.
Lidgerwood Manufacturing Co., 96 Liberty St., New York.
Mead Morrison Mfg. Co., Combridge, Mass.
Pittsburg Tubular Steel Whiffletree Co., Pittsburgh, Pa.
Raymond Bros. Impact Pulverizer Co., 143 Laflin St., Chicago, Ill.
Robins Conveying Belt Co., Passaic, N. J.
Shaw Co., Willis, 171 La Salle St., Chicago, Ill.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
Traylor Engineering Co., 2 Rector St., N. Y.
Union Iron Works, The, Hoboken, N. J.
Webster Mfg. Co., 1075 West 15th St., Chicago, Ill.; 88-90 Reade St., New York.
Wiener Company, Ernst, 168 Morris Bldg., N.Y.
Wonham-Magor Engineering Works, 29 B'way, New York.

Coal Tipples

Riverside Bridge Co., Martins Ferry, Ohio.

Coatings (Protective)

Standard Asphalt & Rubber Co., 944 First Nat'l Bank Bldg., Chicago, Ill.

Cofferdams

Foundation Co., The, 115 B'way, New York.

Columns

Riverside Bridge Co., Martins Ferry, Ohio.

Compressed-Air Tools

Scully Steel & Iron Co., Chicago, Ill.

Compressors (Air)

Scully Steel & Iron Co., Chicago, Ill.

Concrete

Foundation Co., The, 115 B'way, New York.

Concrete Barrows (Charging)

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.

Roehring Machine Co., Milwaukee, Wis.

Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburgh, Pa.

McCoy Co., Henry J., 65-67 Dey St., N. Y.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Mention the "Record" when writing.

Ransome Concrete Machinery Co., Dunellen,
N. J.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Stuebner Iron Works, G. L., Foot of 12th St.,
Long Island City, N. Y.
Union Iron Works, The, Hoboken, N. J.
Wiener Company, Ernst, 168 Morris Bldg., N.Y.

Concrete Block Machines

Ashland Steel Range & Mfg. Co., The, Ash-
land, Ohio.
Century Cement Machine Co., 186 West Main
St., Rochester, N. Y.
Peerless Brick Machine Co., 30 North 6th St.,
Minneapolis, Minn.
Standard Sand & Machine Co., Cleveland, O.

Concrete Construction

Aberthaw Construction Co., 8 Beacon St., Bos-
ton, Mass.
Ambursen Hydraulic Construction Co., 176
Federal St., Boston, Mass.
American Concrete-Steel Co., Union Bldg.,
Newark, N. J.
Bunting Co., J. E., Flat Iron Bldg., N. Y.
Clinton Wire Cloth Co., Clinton, Mass.
Concrete Asso. of Am., Brunswick Bldg., N.Y.
Concrete-Steel Engineering Co., Park Row
Bldg., New York.
Cullen-Friestedt Co., 1526 Tribune Bldg., Chi-
cago, Ill.
Ferro-Concrete Construction Co., Richmond &
Harriet Sts., Cincinnati, Ohio.
Foundation Co., The, 115 B'way, N. Y.
General Fireproofing Co., The, Youngstown, O.
Goff-Horner & Co., "Ltd.," Frick Bldg., Pitts-
burg, Pa.
Hallberg System, 84 La Salle St., Chicago, Ill.
Holland Construction Co., West New Brighton,
New York.
Jackson, George W., "Inc.," 169-179 W. Jackson
Boulevard, Chicago, Ill.
Lawrence Cement Co., 1 B'way, New York.
Maxwell Concrete Steel Co., Penobscot Bldg.,
Detroit, Mich.
Nims Concrete Machinery, Philadelphia, N. Y.
Noelke-Richards Iron Works, Indianapolis,
Ind.
Pneumatic Caisson Co., Troy, N. Y.
Potomac Dredging Co., 24-25 Home Life Bldg.,
Washington, D. C.
Raymond Concrete Pile Co., 135 Adams St.,
Chicago, Ill.
Rodgers Company, The, Monadnock Block,
Chicago, Ill.
Roebbling Construction Co., The, Fuller Bldg.,
B'way & 23d St., New York.
Standard Concrete Steel Co., 31st, 32d Sts.,
East River, New York.
Trussed Concrete Steel Co., Detroit, Mich.

Mention the "Record" when writing,

Turner Construction Co., 11 B'way, New York.
Turner-Forman Concrete Steel Co., 1201 Chestnut St., Philadelphia, Pa.
Weber Steel Concrete Chimney Co., Marquette Bldg., Chicago, Ill.

Concrete Engineers (Reinforced)

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
Ambursen Hydraulic Construction Co., 176 Federal St., Boston, Mass.
American Concrete-Steel Co., Union Bldg., Newark, N. J.
American System of Reinforcing, 189 La Salle St., Chicago, Ill.
Associated Expanded Metal Cos., 221 Fifth Ave., New York.
Concrete-Steel Engineering Co., Park Row Bldg., New York.
Cullen-Friestedt Co., 1526 Tribune Bldg., Chicago, Ill.
Expanded Metal & Corrugated Bar Co., Frisco Bldg., St. Louis, Mo.
General Fireproofing Co., The, Youngstown, O.
Goff-Horner & Co., "Ltd.," Frick Bldg., Pittsburgh, Pa.
Hennebique Construction Co., 1170 B'way, N.Y.
Holland Construction Co., West New Brighton, New York.
Michigan Technical Laboratory, 58 Lafayette Ave., Detroit, Mich.
Portland Iron & Steel Co., Board of Trade Bldg., Boston, Mass.
Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.
Raymond Concrete Pile Co., 135 Adams St., Chicago, Ill.
Rodgers Company, The, Monadnock Block, Chicago, Ill.
Standard Concrete Steel Co., 31st & 32d Sts., East River, New York.
Turner Construction Co., 11 B'way, N. Y.

Concrete Mixers

Abenague Machine Works, Westminster Station, Vt.
Ashland Steel Range & Mfg. Co., The, Ashland, Ohio.
Bergen Point Iron Works, 149 B'way, N. Y.
Buffalo Concrete Mixer Co., The, 12 Builders Exchange, Buffalo, N. Y.
Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburgh, Pa.
Century Cement Machine Co., 186 West Main St., Rochester, N. Y.
Chain Belt Co., Milwaukee, Wis.
Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.
Chicago Concrete Machinery Co., 20 South Canal St., Chicago, Ill.

Mention the "Record" when writing.

Colorado Concrete Mixer Co., 1814 Arapahoe
 St., Denver, Col.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.
 Drake Standard Machine Works, 298-302 West
 Jackson Boulevard, Chicago, Ill.
 Dunning, W. D., Water St., Syracuse, N. Y.
 Eureka Machine Co., Lansing, Mich.
 Foote Concrete Machinery Co., 184 La Salle
 St., Chicago, Ill.
 Hains Concrete Mixer Co., 723 Union Trust
 Bldg., Washington, D. C.
 Hough Co., William B., 1336-7 Monadnock
 Block, Chicago, Ill.
 International F. & Fireproofing Co., Columbus,
 Ohio.
 Kalamazoo Railway Supply Co., Kalamazoo,
 Mich.
 Koehring Machine Co., Milwaukee, Wis.
 McKelvey Concrete Mch. Co., Cleveland, O.
 Municipal Engineering & Contracting Co.,
 Jackson Boulevard & Michigan Ave., Chi-
 cago, Ill.
 Nims Concrete Machinery, Philadelphia, N. Y.
 Perrin, Seamans & Co., 57 Oliver St., Boston.
 Ransome Concrete Machinery Co., Dunellen,
 N. J.
 Scholl & Co., Julian, 126 Liberty St., N. Y.
 Shaw Co., Willis, 171 La Salle St., Chicago.
 Standard Sand & Machine Co., Cleveland, O.
 Svenson-Shuman Machine Co., 602 Bessemer
 Bldg., Pittsburg, Pa.
 Wilcox Co., W. H., Binghamton, N. Y.
 Youngstown Car Mfg. Co., Youngstown, O.

Concrete Pipe

Lock Joint Pipe Co., 346 B'way, New York.

Concrete Reinforcement

American Steel & Wire Co., Commercial Nat'l
 Bank Bldg., Chicago, Ill.
 Goff, Horner & Co., "Ltd.," Frick Bldg., Pitts-
 burg, Pa.

Concrete Steel

Ambursen Hydraulic Construction Co., 176
 Federal St., Boston, Mass.
 American System of Reinforcing, 189 La Salle
 St., Chicago, Ill.
 Belmont Iron Works, 22d St., & Washington
 Ave., Philadelphia, Pa.
 Buffalo Steel Co., Towanda, N. Y.
 Calumet Steel Co., Commercial Nat'l Bank
 Bldg., Chicago, Ill.
 Concrete-Steel Engineering Co., Park Row
 Bldg., New York.
 Douglas, Geo. B., 29 B'way, New York.
 Ferro-Concrete Construction Co., Richmond &
 Harriet Sts., Cincinnati, Ohio.
 Gabriel Concrete Reinforcement Co., 1206-
 1208 Penobscot Bldg., Detroit, Mich.

Mention the "Record" when writing.

General Fireproofing Co., The, Youngstown, O.
 Goff-Horner & Co., "Ltd.," Frick Bldg., Pitts-
 burg, Pa.
 Hough & Co., William B., 1336-7 Monadnock
 Block, Chicago, Ill.
 Inland Steel Co., First Nat'l Bank Bldg., Chi-
 cago, Ill.
 International F. & Fireproofing Co., Columbus,
 Ohio.
 Jackson, George W., "Inc.," 169-179 West
 Jackson Boulevard, Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 Maxwell Concrete Steel Co., Penobscot Bldg.,
 Detroit, Mich.
 Memphis Bridge Co., Memphis, Tenn.
 Portland Iron & Steel Co., Board of Trade
 Building, Boston, Mass.
 Riverside Bridge Co., Martins Ferry, Ohio.
 Rodgers Company, The, Monadnock Block,
 Chicago, Ill.
 Rogers-Shear Company, The, Warren, Pa.
 Standard Concrete Steel Co., 31st & 32d Sts.,
 East River, New York.
 Trussed Concrete Steel Co., Detroit, Mich.
 Truss Metal Lath Co., 147 Fourth Ave, N. Y.
 Tucker & Vinton, 41st St. & Park Ave., N. Y.
 Turner-Forman Concrete Steel Co., 1201 Chest-
 nut St., Pa.

Concrete Waterproofing

Bayer, J. C., Front & Market Sts., Portland,
 Ore.
 Elaterite Paint & Mfg. Co., Des Moines, Ia.
 Grosche & Co., Bruno, 23 Jones Lane, N. Y.
 Hydrex Felt & Engineering Co., 120 Liberty
 St., N. Y.
 Standard Asphalt & Rubber Co., 944 First
 National Bank Bldg., Chicago, Ill.
 Warner Co., Charles, Wilmington, Del.
 Winslow Co., E. J., 138 Jackson Boulevard,
 Chicago, Ill.

Condenser Boxes

Graver Tank Works, Wm., East Chicago, Ind.

Condensers

Knowles Steam Pump Co., 115 B'way, N. Y.
 Union Steam Pump Co., Battle Creek, Mich.

Condensers and Cooling Towers

Dean Bro.'s Steam Pump Works, Indianapolis,
 Ind.
 Graver Tank Works, Wm., East Chicago, Ind.
 Prescott Steam Pump Co., Fred. M., Mil-
 waukee, Wis.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Southwark Foundry & Machine Co., Phila., Pa.
 Weber Co., The, Marquette Bldg., Chicago, Ill.
 Williamson Bros. Co., Aramingo Ave. & Cum-
 berland St., Philadelphia, Pa.

Mention the "Record" when writing.

Condensers (Steam)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Conduits (Creosoted Wood)

American District Steam Co., Lockport, N. Y.
Bunting Co., J. E., Flatiron Bldg., N. Y.
Michigan Pipe Co., The, Bay City, Mich.
National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.

Conduits (Electric Wiring)

International Electric & Engineering Co., 148 Chambers St., New York.

Conduits (Steel)

Graver Tank Works, Wm., East Chicago, Ind.

Conduits (Vitrified Clay)

Bunting Co., J. E., Flatiron Bldg., N. Y.
Johns-Manville Co., H. W., 100 William St., New York City.
N. Y. State Sewer Pipe Co., Rochester, N. Y.
Patton Clay Mfg. Co., Patton, Pa.
Robinson Clay Product Co. of N. Y. Flatiron Bldg., New York.
Warner Co., Charles, Wilmington, Del.

Construction Reports

Dodge Co., F. W., 11 East 24th St., N. Y.

Consulting Engineers

Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block, Chicago, Ill.

Contractors' Drafting Supplies

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.

Contractors' Equipment and Supplies

Zelnicker Supply Co., Walter A., St. Louis, Mo.

Contractors (General)

American Concrete-Steel Co., Union Bldg., Newark, N. J.
American Test Boring & Drilling Co., 32 B'way, New York.
Anchor Post Iron Works, 147 Nassau St., N.Y.
Atlantic Gulf & Pacific Co., Park Row Bldg., New York.
Bunting Co., J. E., Flatiron Bldg., N. Y.
Clinton Bridge & Iron Works, Clinton, Ia.
Cullen-Friestedt Co., 1526 Tribune Bldg., Chicago, Ill.
Decatur Bridge Co., Decatur, Ill.
Ferro-Concrete Construction Co., Richmond and Harriet Sts., Cincinnati, Ohio.
Foundation Co., The, 115 B'way, New York.
Geisel Construction Co., 620 Chestnut St., St. Louis, Mo.
Gillespie Co., T. A., Westinghouse Bldg., Pittsburg, Pa.

Mention the "Record" when writing.

Holland Construction Co., West New Brighton,
 New York.
 Jackson, George W., "Inc.," 169-179 W. Jack-
 son Boulevard, Chicago, Ill.
 Lawrence Cement Co., 1 B'way, New York.
 Memphis Bridge Co., Memphis, Tenn.
 Naughton & Co., 299 B'way, New York.
 Nims Concrete Machinery, Philadelphia, N. Y.
 O'Rourke Engineering Construction Co., 345
 Fifth Ave., New York.
 Page & Shnable, 1002 Security Bldg., Chicago.
 Pneumatic Caisson Co., Troy, N. Y.
 Potomac Dredging Co., 24-25 Home Life Bldg.,
 Washington, D. C.
 Raymond Concrete Pile Co., 135 Adams St.,
 Chicago, Ill.
 Rodgers Co., The, Monadnock Block, Chicago.
 Scherzer Rolling Lift Bridge Co., 1616 Monad-
 nock Block, Chicago, Ill.
 Scully Foundation & Transportation Co., John
 T., 84 First St., Cambridge, Mass.
 Snare & Triest Co., The, 143 Liberty St., N.Y.
 Standard Concrete-Steel Co., 31st, 32d Sts. and
 East River, New York.
 Stone & Webster Engineering Corporation, 147
 Milk St., Boston, Mass.
 Terry & Tench Co., "Inc.," 131st St. and Lex-
 ington Ave., New York.
 Tracy Engineering Co., The, Union Trust
 Bldg., Los Angeles, Cal.
 Troy Public Works Co., Utica, N. Y.

Contractors (Interlocking Piling)

Cullen-Friestedt Co., 1526 Tribune Bldg., Chi-
 cago, Ill.
 Hough Co., William B., 1336-7 Monadnock
 Block, Chicago, Ill.
 Jackson, George W., "Inc.," 169-179 W. Jack-
 son Boulevard, Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 Wemlinger Steel Piling Co., 11 B'way, N. Y.
 Whittekind, Henry, 4730 N. Clark St., Chicago.

Contractors' Machinery

American Hoist & Derrick Co., St. Paul, Minn.
 Austin Drainage Excavator Co., F. C., Railway
 Exchange, Chicago, Ill.
 Bacon, Earle C., Havemeyer Bldg., New York.
 Bergen Point Iron Works, 149 B'way, N. Y.
 Blaw Collapsible Steel Centering Co., West-
 ingham Bldg., Pittsburg, Pa.
 Bucyrus Co., The, South Milwaukee, Wis.
 Byers Machine Co., The John F., Ravenna, O.
 Carlin Machinery & Supply Co., "Inc.," 223
 Sandusky St., North Side, Pittsburg, Pa.
 Carson Trench Machine Co., 16 Dorrance St.,
 Boston, Mass.
 Chandler, Geo. M., 42-9 N. Illinois St., In-
 dianapolis, Ind.

Mention the "Record" when writing.

Chicago Concrete Machinery Co., 20 South
 Canal St., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Contractors Plant Mfg. Co., Buffalo, N. Y.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.
 Dobbie Foundry & Machine Co., Niagara
 Falls, N. Y.
 Erie Pump & Engine Co., Erie, Pa.
 Foote Concrete Machinery Co., 184 La Salle
 St., Chicago, Ill.
 Hayward Co., The, 97 Cedar St., New York.
 Hough Co., William B., 1336-7 Monadnock
 Block, Chicago, Ill.
 Indiana Road Machine Co., Fort Wayne, Ind.
 Ingersoll-Rand Co., 11 B'way, New York.
 Koppel Co., Arthur, 1601 Machesney Bldg.,
 Pittsburg, Pa.
 Lawrence Machine Co., Lawrence, Mass.
 Lombard Iron Works & Supply Co., Augusta,
 Ga.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Monighan Machine Co., 809-823 Carroll Ave.,
 Chicago, Ill.
 Municipal Engineer'g & Contracting Co., Jack-
 son Boulevard and Mich. Ave., Chicago.
 Parsons Co., G. W., 306 Observatory Bldg.,
 Des Moines, Ia.
 Perrin, Seamans & Co., 57 Oliver St., Boston.
 Pittsburg Tubular Steel Whiffletree Co., Pitts-
 burg, Pa.
 Power & Mining Machinery Co., Cudahy, Wis.
 Ransome Concrete Machinery Co., Dunellen,
 N. J.
 Robins Conveying Belt Co., Passaic, N. J.
 Scholl & Co., Julian, 126 Liberty St., N. Y.
 Shaw Co., Willis, 171 La Salle St., Chicago.
 Studebaker Bros. Mfg. Co., South Bend, Ind.
 Sturtevant Mill Co., Harrison Sq., Boston.
 Svenson-Shuman Machine Co., 602 Bessemer
 Bldg., Pittsburg, Pa.
 Union Iron Works, The, Hoboken, N. J.
 Wilcox Co., W. H., Binghamton, N. Y.
 Wonham-Magor Engineering Works, 29 B'way,
 New York.

Conveying Machinery

Allis-Chalmers Co., Milwaukee, Wis.
 Atlas Dryer Co., The, Cleveland, Ohio.
 Bacon, Earle C., Havemeyer Bldg., N. Y.
 Bartlett & Snow Co., C. O., Cleveland, O.
 Bergen Point Iron Works, 149 B'way, N. Y.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Carson Trench Machine Co., 16 Dorrance St.,
 Boston, Mass.
 Chain Belt Co., Milwaukee, Wis.
 Cleveland Crane & Car Co., Wickliffe, Ohio.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.

Mention the "Record" when writing.

Cresson Co., Geo. V., Philadelphia, Pa.
 Hayward Co., The, 97 Cedar St., New York.
 Koppel Co., Arthur, 1601 Machesney Bldg.,
 Pittsburg, Pa.
 Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Monighan Machine Co., 809-823 Carroll Ave.,
 Chicago, Ill.
 Nims Concrete Machinery, Philadelphia, N. Y.
 Northern Engineering Works, Detroit, Mich.
 Power & Mining Machinery Co., Cudahy, Wis.
 Raymond Bros. Impact Pulverizer Co., 143
 Laflin St., Chicago, Ill.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Robins Conveying Belt Co., Passaic, N. J.
 Shaw Co., Willis, 171 La Salle St., Chicago.
 Standard Sand & Machine Co., Cleveland, O.
 Sturtevant Mill Co., Harrison Sq., Boston.
 Webster Mfg. Co., 1075 W. 15th St., Chicago,
 Ill.; 88-90 Reade St., New York.

Conveyors (Automatic Power)

Broderick & Bascom Rope Co., St. Louis, Mo.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Nims Concrete Machinery, Philadelphia, N. Y.
 Sturtevant Mill Co., Harrison Sq., Boston.

Conveyors (Cable)

Broderick & Bascom Rope Co., St. Louis, Mo.
 Carson Trench Machine Co., 16 Dorrance St.,
 Boston, Mass.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Roebling's Sons Co., John A., Trenton, N. J.

Conveyors (Chain)

Chain Belt Co., Milwaukee, Wis.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.
 Standard Sand & Machine Co., Cleveland, O.
 Webster Mfg. Co., 1075 W. 15th St., Chicago,
 Ill.; 88-90 Reade St., New York.

Conveyors (Trench Excavating)

Carson Trench Machine Co., 16 Dorrance St.,
 Boston, Mass.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.
 Hayward Co., The, 97 Cedar St., New York.
 Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
 Municipal Engineer's & Contracting Co., Jack-
 son Boulevard and Mich. Ave., Chicago.

Copper

Scully Steel & Iron Co., Chicago, Ill.

Cord

Leschen & Sons Rope Co., A., St. Louis, Mo.

Mention the "Record" when writing.

Cordage

American Mfg. Co., 65 Wall St., New York.

Cornices

American Skylight & Iron Works, 221 Randolph Ave., Jersey City, N. J.

Atlas Roofing Co., 115-117 Clark St., Newburgh, N. Y.

Bayer, J. C., Front and Market Sts., Portland, Ore.

Berger Mfg. Co., The, Canton, Ohio.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Mullins Co., W. H., 342 Franklin St., Salem, O.

Van Noorden Co., E., 950 Mass. Ave., Boston.

Corporation Cocks

Clow & Sons, James B., Chicago, Ill.

National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.

Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.

Countershafts

Sturtevant Co., B. F., Hyde Park, Mass.

Valley Iron Works, Williamsport, Pa.

Couplings (Compression)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Couplings (Flange)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Couplings (Friction Clutch)

Allis-Chalmers Co., Milwaukee, Wis.

Chain Belt Co., Milwaukee, Wis.

Lombard Iron Works & Supply Co., Augusta, Ga.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Smith Co., S. Morgan, York, Pa.

Valley Iron Works, Williamsport, Pa.

Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.

Couplings (Large Pipe)

American Spiral Pipe Works, 14th St. and 48th Ave., Chicago, Ill.

Couplings (Pipe)

American Spiral Pipe Works, 14th St. and 48th Ave., Chicago, Ill.

Couplings (Shaft)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Cranes and Hoists

Bergen Point Iron Works, 149 B'way, N. Y.

Cranes (Air)

Independent Pneumatic Tool Co., Chicago and New York.

Ingersoll-Rand Co., 11 B'way, New York.

Mention the "Record" when writing.

Northern Engineering Works, Detroit, Mich.
Wonham-Magor Engineering Works, 29 B'way,
New York.

Cranes (Derrick)

American Hoist & Derrick Co., St. Paul, Minn.
Bacon, Earle C., Havemeyer Bldg., N. Y.
Brown Hoisting Machinery Co., The, 4403 St.
Clair Ave., Cleveland, Ohio.
Bucyrus Co., The, South Milwaukee, Wis.
Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.
Contractors Plant Mfg. Co., Buffalo, N. Y.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Dobbie Foundry & Mach. Co., Niagara Falls,
N. Y.
Hayward Co., The, 97 Cedar St., New York.
Northern Engineering Works, Detroit, Mich.
Parker Hoist & Machine Co., 971 N. Francisco
Ave., Chicago, Ill.
Shaw Co., Willis, 171 La Salle St., Chicago.
Wonham-Magor Engineering Works, 29 B'way,
New York.

Cranes (Electric Locomotive)

Boston Bridge Works, 47 Winter St., Boston.
Brown Hoisting Machinery Co., The, 4403 St.
Clair Ave., Cleveland, Ohio.
Cleveland Crane & Car Co., Wickliffe, Ohio.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Hayward Co., The, 97 Cedar St., New York.
International Electric & Engineering Co., 148
Chambers St., New York.
Manning, Maxwell & Moore, 85-89 Liberty
St., New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.

Cranes (Hand-Power)

Bacon, Earle C., Havemeyer Bldg., N. Y.
Boston Bridge Works, 47 Winter St., Boston.
Brown Hoisting Machinery Co., The, 4403 St.
Clair Ave., Cleveland, Ohio.
Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.
Cleveland Crane & Car Co., Wickliffe, Ohio.
Dobbie Foundry & Mach. Co., Niagara Falls,
N. Y.
Maris Bros., 56th and Gray's Ave., Phila., Pa.
Northern Engineering Works, Detroit, Mich.
Parker Hoist & Machine Co., 971 N. Francisco
Ave., Chicago, Ill.
Ransome Concrete Machinery Co., Dunellen,
N. J.
Reading Crane & Hoist Works, Reading, Pa.
Whitehead & Kales Iron W'ks, Detroit, Mich.
Wonham-Magor Engineering Works, 29 B'way,
New York.

Mention the "Record" when writing.

Cranes (Hydraulic)

Brown Hoisting Machinery Co., The, 4403 St. Clair Ave., Cleveland, Ohio.
Cleveland Crane & Car Co., Wickliffe, Ohio.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Wood & Co., R. D., 400 Chestnut St., Phila.

Cranes (Jib)

Reading Crane & Hoist Works, Reading, Pa.

Cranes (Locomotive)

American Hoist & Derrick Co., St. Paul, Minn.
Brown Hoisting Machinery Co., The, 4403 St. Clair Ave., Cleveland, Ohio.
Williamson Bros. Co., Aramingo Ave. and Cumberland St., Philadelphia, Pa.

Cranes (Locomotive, Electric or Steam)

Northern Engineering Works, Detroit, Mich.

Cranes (Pneumatic)

Northern Engineering Works, Detroit, Mich.

Cranes (Traveling)

Boston Bridge Works, 47 Winter St., Boston.
Brown Hoisting Machinery Co., The, 4403 St. Clair Ave., Cleveland, Ohio.
Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.
Cleveland Crane & Car Co., Wickliffe, Ohio.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Dobbie Foundry & Mach. Co., Niagara Falls, N. Y.
Hayward Co., The, 97 Cedar St., New York.
Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.
Manning, Maxwell & Moore, 85-89 Liberty St., New York.
Maris Brothers, 56th & Gray's Ave., Phila.
Northern Engineering Works, Detroit, Mich.
Ransome Concrete Machinery Co., Dunellen, N. J.
Reading Crane & Hoist Works, Reading, Pa.
Wonham-Magor Engineering Works, 29 B'way, New York.

Crayons (Marking)

Dixons Crucible Co., Joseph, Jersey City, N.J.

Creosoting

Allis-Chalmers Co., Milwaukee, Wis.
American Creosoting Co., 29 B'way, N. Y.
Barber Asphalt Paving Co., Maurer, N. J.
Grosche & Co., Bruno, 23 Jones Lane, N. Y.
Gulfport Creosoting Co., Gulfport, Miss.
Michigan Pipe Co., Bay City, Mich.

Creosoting Cylinders

Petroleum Iron Works Co., The, Sharon, Pa.

Mention the "Record" when writing.

Crossings, Railway (See Frogs)

Indianapolis Switch & Frog Co., Springf'd, O.
Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.
Pennsylvania Steel Co., Philadelphia, Pa.
Wiener Company, Ernst, 168 Morris Bldg, N. Y.

Crusher Castings (Rock)

Allis-Chalmers Co., Milwaukee, Wis.
Bacon, Earle C., Havemeyer Bldg., N. Y.
Pennsylvania Steel Co., The, Phila., Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Traylor Engineering Co., 2 Rector St., N. Y.

Crushers

Allis-Chalmers Co., Milwaukee, Wis.
Austin Mfg. Co., Chicago, Ill.
Bacon, Earle C., Havemeyer Bldg., N. Y.
Chicago Concrete Machinery Co., 20 South
Canal St., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Cresson Co., Geo. V., Phila., Pa.
Fitzgerald, B. E., 1617 Fifth Ave., McKeesport,
Pa.
Indiana Road Machine Co., Fort Wayne, Ind.
Kent Mill Co., 170 B'way, New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Pittsburg Tubular Steel Whiffletree Co., Pitts-
burg, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Ransome Concrete Machinery Co., Dunellen,
N. J.
Raymond Bros. Impact Pulverizer Co., 143
Laflin St., Chicago, Ill.
Scholl & Co., Julian, 126 Liberty St., N. Y.
Shaw Co., Willis, 171 La Salle St., Chicago.
Smith & Co., T. L., Milwaukee, Wis.
Sturtevant Mill Co., Harrison Sq., Boston.
Traylor Engineering Co., 2 Rector St., N. Y.

Crushers (Fine)

Sturtevant Mill Co., Harrison Sq., Boston.

Crushers for Coal, Shale, Bone, Asphalt, Rock

Allis-Chalmers Co., Milwaukee, Wis.
Climax Road Machine Co., Marathon, N. Y.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Indiana Road Machine Co., Fort Wayne, Ind.
Mead-Morrison Mfg., Co., Cambridge, Mass.
Power & Mining Machinery Co., Cudahy, Wis.
Prosser & Sons, Thos. ("Krupp"), 15 Gold St.,
New York.
Raymond Bros. Impact Pulverizer Co., 143
Laflin St., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston.
Traylor Engineering Co., 2 Rector St., N. Y.

Mention the "Record" when writing.

Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.

Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Crushers (Rock)

Sturtevant Mill Co., Harrison Sq., Boston.

Crushers (Stone)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Crushing and Mining Machinery (Portable)

Bacon, Earle C., Havemeyer Bldg., N. Y.

Carlin Machinery & Supply Co., "Inc.," 223

Sandusky St., North Side, Pittsburg, Pa.

Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.

Climax Road Machine Co., Marathon, N. Y.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Indiana Road Machine Co., Fort Wayne, Ind.

Kent Mill Co., 170 B'way, New York.

Mead Morrison Mfg. Co., Cambridge, Mass.

Power & Mining Machinery Co., Cudahy, Wis.

Raymond Bros., Impact Pulverizer Co., 143 Laflin St., Chicago, Ill.

Sturtevant Mill Co., Harrison Sq., Boston.

Traylor Engineering Co., 2 Rector St., N. Y.

Crushing Plants Complete

Bacon, Earle C., Havemeyer Bldg., New York.

Crushing Rolls

Allis-Chalmers Co., Milwaukee, Wis.

Bacon, Earle C., Havemeyer Bldg., N. Y.

Carlin Machinery & Supply Co., "Inc.," 223

Sandusky St., North Side, Pittsburg, Pa.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Kent Mill Co., 170 B'way, New York.

Power & Mining Machinery Co., Cudahy, Wis.

Raymond Bros., Impact Pulverizer Co., 143 Laflin St., Chicago, Ill.

Sturtevant Mill Co., Harrison Sq., Boston.

Traylor Engineering Co., 2 Rector St., N. Y.

Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.

Culverts

Indiana Road Machine Co., Fort Wayne, Ind.

Cupolas

Northern Engineering Works, Detroit, Mich.

Power & Mining Machinery Co., Cudahy, Wis.

Wonham-Magor Engineering Works, 29 B'way, New York.

Curb Boxes (Meter)

Buffalo Meter Co., 290-296 Terrace, Buffalo, N. Y.

Mention the "Record" when writing.

Curb (Steel-Bound)

Steel Protected Concrete Co., Phila., Pa.

Curb (Steel-Protected)

Steel Protected Concrete Co., Phila., Pa.

Cutters (Rod and Bolt)

Scully Steel & Iron Co., Chicago, Ill.

Cyclone Collectors

Raymond Bros. Impact Pulverizer Co., 143
Lafin St., Chicago, Ill.

Cylinders

Graver Tank Works, Wm., East Chicago, Ind.

Dams (Concrete)

Aberthaw Construction Co., 8 Beacon St., Bos-
ton, Mass.

Ambursen Hydraulic Construction Co., 176
Federal St., Boston, Mass.

Bunting Co., J. E., Flatiron Bldg., N. Y.

Concrete-Steel Engineering Co., Park Row
Bldg., New York.

Cullen-Friestedt Co., 1526 Tribune Bldg., Chi-
cago, Ill.

Foundation Co., The, 145 B'way, New York.

Jackson, George W., "Inc.," 169-179 W. Jack-
son Boulevard, Chicago, Ill.

Kosmos Portland Cement Co., "Inc.," 614-
616 Paul Jones Bldg., Louisville, Ky.

Nims Concrete Machinery, Philadelphia, N. Y.

Rodgers Company, The, Monadnock Block,
Chicago, Ill.

Trussed Concrete Steel Co., Detroit, Mich.

Derails

Indianapolis Switch & Frog Co., Springfield, O.

Derrick Crabs

Dake Engine Co., Grand Haven, Mich.

Derrick Irons

Byers Machine Co., The John F., Ravenna, O.

Monighan Machine Co., 809-823 Carroll Ave.,
Chicago, Ill.

Derricks and Derrick Fittings

American Hoist & Derrick Co., St. Paul, Minn.

Baltimore Bridge Co., Bush St. and B. & O. R.
R., Baltimore, Md.

Bergen Point Iron Works, 149 B'way, N. Y.

Broderick & Bascom Rope Co., St. Louis, Mo.

Byers Machine Co., The John F., Ravenna, O.

Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.

Chandler, Geo. M., 42-9 North Illinois St., In-
dianapolis, Ind.

Contractors Plant Mfg. Co., Buffalo, N. Y.

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Dobbie Foundry & Machine Co., Niagara Falls,
N. Y.

Hayward Co., The, 97 Cedar St., New York.

Mention the "Record" when writing.

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 Lombard Iron W'ks & Supply Co., Augusta, Ga.
 Monighan Machine Co., 809-823 Carroll Ave., Chicago, Ill.
 New York Cableway & Engineering Co., 2 Rector St., New York.
 Noelke-Richards Iron Works, Indianapolis, Ind.
 Northern Engineering Works, Detroit, Mich.
 Parker Hoist & Machine Co., 971 North Francisco Ave., Chicago, Ill.
 Patterson Co., W. W., Pittsburg, Pa.
 Perrin, Seamans & Co., 57 Oliver St., Boston.
 Reliance Machine & Tool Works, St. Louis, Mo.
 Shaw Co., Willis, 171 La Salle St., Chicago.
 Terry & Tench Co., "Inc.," 131st St. & Lexington Ave., New York.

Derricks (Pile Driving)

American Hoist & Derrick Co., St. Paul, Minn.
 Bucyrus Co., The, So. Milwaukee, Wis.
 Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
 Contractors Plant Mfg. Co., Buffalo, N. Y.
 Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Hayward Co., The, 97 Cedar St., New York.
 Lombard Iron W'ks & Supply Co., Augusta, Ga.
 New York Cableway & Engineering Co., 2 Rector St., New York.

Derricks (Steam)

American Hoist & Derrick Co., St. Paul, Minn.
 Bucyrus Co., The, South Milwaukee, Wis.
 Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
 Contractors Plant Mfg. Co., Buffalo, N. Y.
 Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Hayward Co., The, 97 Cedar St., New York.
 New York Cableway & Engineering Co., 2 Rector St., New York.
 Parker Hoist & Machine Co., 971 North Francisco Ave., Chicago, Ill.

Derricks (Steel)

Riter-Conley Co., Pittsburg, Pa.

Diffusers (Air)

New York Blower Co., Chicago, Ill.

Distillers

Williamson Bros. Co., Aramingo Ave., & Cumberland St., Philadelphia, Pa.

Mention the "Record" when writing.

Ditching Machinery, Steam Shovels, Etc. (See Excavating Machinery)

American Hoist & Derrick Co., St. Paul, Minn.
Austin Drainage Excavator Co., F. C., Railway Exchange, Chicago, Ill.
Bucyrus Co., The, South Milwaukee, Wis.
Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Hayward Co., The, 97 Cedar St., New York.
Indiana Road Machine Co., Fort Wayne, Ind.
Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburgh, Pa.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Marion Steam Shovel Co., The, 640 W. Center St., Marion, Ohio.
Monighan Machine Co., 809-823 Carroll Ave., Chicago, Ill.
Municipal Engineering & Contracting Co., Jackson Boulevard & Michigan Ave., Chicago.
Parsons Co., G. W., 306 Observatory Bldg., Des Moines, Ia.
Shaw Co., Willis, 171 La Salle St., Chicago, Ill.
Thew Automatic Shovel Co., Lorain, Ohio.
Webster Mfg. Co., 1075 West 15th St., Chicago, Ill.; 88-90 Reade St., New York.

Dodge Reports

Dodge Co., F. W., 11 East 24th St., N. Y.

Doors and Shutters

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
Berger Mfg. Co., The, Canton, Ohio.
Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.
Mesker & Bro., 421 So. 6th St., St. Louis, Mo.
Wilson Mfg. Co., Jas. G., 3 West 29th St., N.Y.

Doors (Metal)

General Fireproofing Co., The, Youngstown, O.

Doors (Rolling)

Wilson Mfg. Co., Jas. G., 3 West 29th St., N.Y.

Draft Dampers

Green Fuel Economizer Co., Matteawan, N. Y.

Draftsmen's Instruments

Lufkin Rule Co., The, Saginaw, Mich.
Technical Supply Co., 46 East 14th St., N. Y.

Drainage

Austin Drainage Excavator Co., F. C., Railway Exchange, Chicago, Ill.

Drawing Materials

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Kolesch & Co., 138 Fulton St., New York.

Mention the "Record" when writing.

Technical Supply Co., 46 East 14th St., N. Y.

Dredging Contractors

Austin Drainage Excavating Co., F. C., Railway Exchange, Chicago, Ill.

Wetherill Bros., Machine Co., Chester, Pa.

Dredging Machinery

Atlantic Gulf & Pacific Co., Park Row Bldg., New York.

Austin Drainage Excavator Co. F. C., Railway Exchange, Chicago, Ill.

Broderick & Bascom Rope Co., St. Louis, Mo.

Bucyrus Co., The, South Milwaukee, Wis.

Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Cresson Co., Geo. V., Philadelphia, Pa.

Erie Pump & Engine Co. Erie, Pa.

Hayward Co., The, 97 Cedar St., New York.

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.

Kiesler Co., The, 82 Pratt St., Chicago, Ill.

Leschen & Sons Rope Co., A., St. Louis, Mo.

Marion Steam Shovel Co., The, 640 West Center St., Marion, Ohio.

Mead-Morrison Mfg. Co., Cambridge, Mass.

Monighan Machine Co., 809-823 Carroll Ave., Chicago, Ill.

Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.

Shaw Co., Willis, 171 La Salle St., Chicago, Ill.

Wetherill Bros., Machine Co., Chester, Pa.

Drift Pins

Scully Steel & Iron Co., Chicago, Ill.

Drill Bits

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Drilling Machines (Blast-Hole)

American Well Works, Aurora, Ill.

Preslar Prospecting & Engineering Co., Cincinnati, Ohio.

Drilling Rope

American Mfg. Co., 65 Wall St., New York.

Drills (Automatic Feed)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Drills (Diamond Core)

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.

Preslar Prospecting & Engineering Co., Cincinnati, Ohio.

Shaw Co., Willis, 171 La Salle St., Chicago, Ill.

Sullivan Machinery Co., Railway Exchange, Chicago, Ill.

Drills (Diamondless Core)

Ingersoll-Rand Co., 11 Broadway, New York.

Mention the "Record" when writing.

Drills (Electric)

Independent Pneumatic Tool Co., Chicago & New York.

Drills (Electric-Air) Rock

Ingersoll-Rand Co., 11 B'way, New York.

Drills (Electric-Driven)

Scully Steel & Iron Co., Chicago, Ill.

Drills (Pneumatic)

Independent Pneumatic Tool Co., Chicago & New York.

Ingersoll-Rand Co., 11 B'way, New York.

Scully Steel & Iron Co., Chicago, Ill.

Sullivan Machinery Co., Railway Exchange, Chicago, Ill.

Drills (Portable)

Scully Steel & Iron Co., Chicago, Ill.

Drills (Ratchet)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Drills (Rock)

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.

Ingersoll-Rand Co., 11 B'way, New York.

McKiernan Drill Co., 115 B'way, New York.

Shaw Co., Willis. 171 La Salle St., Chicago, Ill.

Sullivan Machinery Co., Railway Exchange, Chicago, Ill.

Drums (Hoisting)

Allis-Chalmers Co., Milwaukee, Wis.

Bacon, Earle C., Havemeyer Bldg., New York.

Broderick & Bascom Rope Co., St. Louis, Mo.

Carlin Machinery & Supply Co., "Inc.," 223

Sandusky St., North Side, Pittsburg, Pa.

McCoy Co., Henry J., 65-67 Dey St., N. Y.

Mead-Morrison Mfg., Co., Cambridge, Mass.

Northern Engineering Works, Detroit, Mich.

Parker Hoist & Machine Co., 971 North Francisco Ave., Chicago, Ill.

Traylor Engineering Co., 2 Rector St., N. Y.

Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.

Dryers (Cement or Asphalt)

Allis-Chalmers Co., Milwaukee, Wis.

American Process Co., 62-68 William St., N. Y.

Atlas Dryer Co., The, Cleveland, Ohio.

Bartlett & Snow Co., C. O., Cleveland, O.

Cummer & Sons Co., F. D., 413 Arcade, Cleveland, Ohio.

Fuller Engineering Co., Allentown Nat'l Bank Bldg., Allentown, Pa.

Green Fuel Economizer Co., Matteawan, N.Y.

Power & Mining Machinery Co., Cudahy, Wis.

Ruggles-Coles Engineering Co., 39 Cortl'dt St., New York.

Sharon Boiler Works, Sharon, Pa.

Smidth & Co., F. L., 39-41 Cortl'dt St., N. Y.

Mention the "Record" when writing.

Drying Apparatus (Hot-Blast)

American Blower Co., Detroit, Mich.
American Process Co., 62-68 William St., N. Y.
Andrews & Johnson Co., Chicago, Ill.
Atlas Dryer Co., The, Cleveland, Ohio.
Green Fuel Economizer Co., Matteawan, N. Y.
New York Blower Co., Chicago, Ill.
Sharon Boiler Works, Sharon, Pa.
Standard Sand & Machine Co., Cleveland, O.
Sturtevant Co., B. F., Hyde Park, Mass.

Dumbwaiters

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Dump Boxes

Glen Wagon Co., 40-50 Oak St., Seneca Falls, N. Y.

Troy Wagon Works Co., The, Troy, Ohio.

Dump Wagons (See Wagons—Con- tractors)

Glen Wagon Co., 40-50 Oak St., Seneca Falls, N. Y.

Studebaker Bros. Mfg. Co., South Bend, Ind.

Dust Collectors

American Blower Co., Detroit, Mich.

Green Fuel Economizer Co., Matteawan, N. Y.

Raymond Bros. Impact Pulverizer Co., 143
Laflin St., Chicago, Ill.

Sturtevant Co., B. F., Hyde Park, Mass.

Dynamite

Ætna Powder Co., The, Chicago, Ill.

du Pont de Nemours Powder Co., E. I., Wil-
mington, Del.

Keystone Powder Mfg. Co., Emporium, Pa.

National Powder Co., 353 Fifth Ave., N. Y.

Sinmahoning Powder Mfg. Co., Emporium,
Pa.

Dynamos

Burke Electric Co., Erie, Pa.

C. & C. Electric Co., Garwood, N. J.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Economizers (See Fuel Econo- mizers)

Green Fuel Economizer Co., Matteawan, N. Y.

Sturtevant Co., B. F., Hyde Park, Mass.

Ejectors

American Injector Co., Congress & 7th Sts.,
Detroit, Mich.

Clow & Sons, James B., Chicago, Ill.

Hayden & Derby Mfg., Co., 85-89 Liberty St.,
New York.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Lunkenheimer Co., Cincinnati, Ohio.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Electric Bells

International Electric & Engineering Co., 148
Chambers St., New York.

Ostrander & Co., W. R., 22 Dey St., N. Y.

Mention the "Record" when writing.

Electric Plants and Machinery

Abenague Machine Works, Westminster Station, Vt.

Allis-Chalmers Co., Milwaukee, Wis.

Burke Electric Co., Erie, Pa.

C. & C. Electric Co., The, Garwood, N. J.

De Laval Steam Turbine Co., Trenton, N. J.

General Electric Company, Schenectady, N. Y.

International Electric & Engineering Co., 148 Chambers St., New York.

Ridgway Dynamo & Engine Co., Ridgway, Pa.

Sturtevant Co., B. F., Hyde Park, Mass.

Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Electric Trucks

Studebaker Bros., Mfg. Co., South Bend, Ind.

Electrical Supplies

General Electric Company, Schenectady, N. Y.

Electrical Wires and Cables

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Elevating and Conveying Machinery

Bartlett & Snow Co., C. O., Cleveland, Ohio.

Elevating Graders

Indiana Road Machine Co., Fort Wayne, Ind.

Elevator Dredges

Marion Steam Shovel Co., The, 640 W. Center St., Marion, Ohio.

Elevator Inclosures

Darby & Sons Co., "Inc.," Edw., Phila., Pa.

Elevator Repairs

Marine Engine & Machine Co., 230 West 13th St., New York.

Elevators

Allis-Chalmers Co., Milwaukee, Wis.

Broderick & Bascom Rope Co., St. Louis, Mo.

Marine Engine & Machine Co., 230 West 13th St., New York.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Northern Engineering Works, Detroit, Mich.

Sturtevant Mill Co., Harrison Sq., Boston.

Elevators (Buckets)

Bacon, Earle C., Havemeyer Bldg., N. Y.

Chain Belt Co., Milwaukee, Wis.

Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.

Climax Road Machine Co., Marathon, N. Y.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Indiana Road Machine Co., Fort Wayne, Ind.

Mead-Morrison Mfg., Co., Cambridge, Mass.

Power & Mining Machinery Co., Cudahy, Wis.

Standard Sand & Machine Co., Cleveland, O.

Sterling Wheelbarrow Co., Milwaukee, Wis.

Sturtevant Mill Co., Harrison Sq., Boston.

Mention the "Record" when writing.

Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.

Elevators, Builders'

Byers Machine Co., The John F., Ravenna, O.

Engineering Books (See Books, Engineering and Technical)

McGraw Publishing Co., 239 West 39th St., New York.

Van Nostrand & Co., D., 23 Murray St., N. Y.

Wiley & Sons, John, 43-45 East 19th St., N. Y.

Engineering Reports

Dodge Co., F. W., 11 East 24th St., New York.

Engineers and Contractors

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.

Albright & Mebus, 908 Land Title Bldg., Philadelphia, Pa.

Alvord, John W., 127 Hartford Bldg., Chicago, Ill.

American Concrete Caisson Co., National State Bank Bldg., Troy, New York.

American Concrete-Steel Co., Union Bldg., Newark, N. J.

American District Steam Co., Lockport, N. Y.

Arnold & Andrew, 52 B'way, New York.

Arnold Co., The, 181 La Salle St., Chicago, Ill.

Ash-Dorsey, 127 Montgomery St., San Francisco, Cal.

Asserson, Henry R., 59-61 Pearl St., New York.

Atlas Dryer Co., The, Cleveland, Ohio.

Baldwin, Wm. J., World Bldg., New York.

Barbour, F. A., Tremont Bldg., Boston, Mass.

Barrus, George H., Room 301, 22 Pemberton St., Boston, Mass.

Bates, Putnam A., 42 B'way, New York.

Berlin Construction Co., Berlin, Conn.

Breite, W. W., 925 Golden Gate Ave., San Francisco, Cal.

Brill, George M., 1134 Marquette Bldg., Chicago, Ill.

Bryan, William H., 315-316 Lincoln Trust Bldg., St. Louis, Mo.

Byllesby & Co., H. M., American Trust Bldg., Chicago, Ill.

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

City Wastes Disposal Co., 156 Fifth Ave., N. Y.

Cleveland Crane & Car Co., Wickliffe, Ohio.

Cole, John A. & Edw. S., 220 B'way, N. Y.

Concrete-Steel Engineering Co., Park Row Bldg., New York.

Cullen-Friestedt Co., 1526 Tribune Bldg., Chicago, Ill.

Decatur Bridge Co., Decatur, Ill.

De La Mater, S. T., Hennen Bldg., New Orleans, La.

Dow & Smith, 24-26 East 21st St., N. Y.

Mention the "Record" when writing.

Duryea, Jr., Edwin, 1368 Geary St., San Francisco, Cal.
 Fanning, J. T., 330 Hennepin Ave., Minneapolis, Minn.
 Farrington, Harvey, 45 B'way, New York.
 Ferro-Concrete Construction Co., Richmond & Harriet Sts., Cincinnati, Ohio.
 Field, Barker & Underwood, "Inc.," 514 Arcade Bldg., Philadelphia, Pa.
 Field, Wm. P., Newark, N. J.
 Ford, Owen, 710 Security Bldg., St. Louis, Mo.
 Freeborn Engineering & Construction Co., "Inc.," 605-615 Scarrit Bldg., Kansas City, Mo.
 Fuertes, James H., 140 Nassau St., N. Y.
 Fuller Engineering Co., Allentown Nat'l Bank Bldg., Allentown, Pa.
 Fuller, Frank L., 12 Pearl St., Boston, Mass.
 Gray, Samuel M., Room 929, Weybosset St., Providence, R. I.
 Ham, William Hale, Youngstown, Ohio.
 Hazen, Allen, 220 B'way, New York.
 Hazlehurst, James Nisbet, Candler Bldg., Atlanta, Ga.
 Heineken, Bayne & McCarthy, 1123 B'way, N. Y.
 Hennebique Construction Co., 1170 B'way, N. Y.
 Hering & Fuller, 170 B'way, New York.
 Hill Jr., Nicholas S., 100 William St., N. Y.
 Holland Construction Co., West New Brighton, N. Y.
 Insley Iron Works, Indianapolis, Ind.
 Iowa Engineering Co., 410-411 Weston Block, Clinton, Iowa.
 Jewell Engineering Co., The, Cable Bldg., Chicago, Ill.
 Kafka, Frederick P., Room 628, 156 Fifth Ave., New York.
 Kidde, Walter, 140 Cedar St., New York.
 Kiersted, Wynkoop, 58 Water-Works Bldg., Kansas City, Mo.
 Knight & Hopkins, Rome, New York.
 Leavitt, Jr., Chas. W., 220 B'way, New York.
 Lederle & Provost, 39-41 West 38th St., N. Y.
 Luey, W. A., Monadnock Bldg., San Francisco, Cal.
 Luzerne Engineering Co., Glover Bldg., Hazleton, Pa.
 Lyndon, Lamar, 2 Rector St., New York.
 MacGregor, J. Grant, P. O. Box 411, Louisville, Ky.
 Maury, Dabney H., 129 North Jefferson Ave., Peoria, Ill.
 Maxcy, John Wharton, 204 Blinz Bldg., Houston, Tex.
 Metcalf & Eddy, 14 Beacon St., Boston, Mass.
 Meyer, Jr., Henry C., 1 Madison Ave., N. Y.
 Moore & Sons Corp., Sam'l L., Front & Franklin Sts., Elizabethport, N. J.
 Naughton Co., 299 B'way, New York

Mention me "Record" when writing.

Nims, A. F., Philadelphia, N. Y.
 O'Rourke Engineering Construction Co., 345
 Fifth Ave., New York.
 Owen, James, 196 Market St., Newark, N. J.
 Pacific Flush-Tank Co., 184 La Salle St., Chi-
 cago, Ill.
 Page & Shnable, 1002 Security Bldg., Chicago.
 Palmer Co., W. K., 717-718 Dwight Bldg., Kan-
 sas City, Mo.
 Parmelee, Chas. L., 90 West St., New York.
 Pennsylvania Steel Co., The, Phila., Pa.
 Phillips, Richard H., Security Bldg., St. Louis,
 Mo.
 Phoenix Bridge Co., The, 410 Walnut St.,
 Philadelphia, Pa.
 Potter, Alexander, 143 Liberty St., New York.
 Presler Prospecting & Engineering Co., Cin-
 cinnati, Ohio.
 Prouty-Clark Engineering Co., 305 Studio Bldg.,
 Berkeley, Cal.
 Raymond Concrete Pile Co., 135 Adams St.,
 Chicago, Ill.
 Rhodes, Fred. Dana, 140 Cedar St., New York.
 Riggs & Sherman Co., The, 613 The Nasby,
 Toledo, Ohio.
 Riverside Bridge Co., Martins Ferry, Ohio.
 Rodgers Company, The, Monadnock Block, Chi-
 cago, Ill.
 Rosewater, Andrew, Omaha, Neb.
 Ruggles-Coles Engineering Co., 39 Cortlandt
 St., New York.
 Scarborough, F. W., 816 Mutual Bldg., Rich-
 mond, Va.
 Scherzer Rolling Lift Bridge Co., 1616 Monad-
 nock Block, Chicago, Ill.
 Schott, W. H., Chicago, Ill.
 Shankland, E. C. & R. M., The Rookery, Chi-
 cago, Ill.
 SooySmith, Charles, 71 B'way, New York.
 Standard Concrete Steel Co., 31st, 32d St.,
 East River, New York.
 Tracy Engineering Co., The, Union Trust
 Bldg., Los Angeles, Cal.
 Tribus & Massa, 86 Warren St., New York.
 Tucker, Wm. C., 156 Fifth Ave., New York.
 Turner Construction Co., 11 B'way, N. Y.
 Turner-Forman Concrete Steel Co., 1201 Chest-
 nut St., Philadelphia, Pa.
 U. S. Wind Engine & Pump Co., 280 Water
 St., Batavia, Ill.
 Valley Iron Works, Williamsport, Pa.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Waddell & Harrington, New Nelson Bldg.,
 Kansas City, Mo.
 Wallace & Co., Joseph H., Temple Court Bldg.,
 New York.
 Webster Mfg. Co., 1075 West 15th St., Chicago,
 Ill.; 88-90 Reade St., New York.
 Webster, Albert L., 43-49 Exchange Pl., N. Y.

Mention the "Record" when writing.

Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
 Weston, Edmund B., 86 Weybosset St., Providence, R. I.
 Whipple, George C., 220 B'way, New York.
 White & Co., J. G., 41-43 Wall St., New York.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wilkins Co., W. G., Westinghouse Bldg., Pittsburg, Pa.
 Wilson, Harris & Richards, Drexel Bldg., Philadelphia, Pa.
 Wingfield, Nisbet, 811 Ellis St., Augusta, Ga.
 Wise & Watson, 34 Bloomfield Ave., Passaic, N. J.

Engineers' and Surveyors' Instruments

Buff & Buff, Jamaica Plain Station, Boston.

Engineers' and Surveyors' Instruments and Supplies

Ainsworth & Sons, Wm., Denver, Colo.
 American Injector Co., Congress & 7th Sts., Detroit, Mich.
 Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
 Berger & Sons, C. L., 37 Williams St., Boston.
 Chicago Steel Tape Co., 6233 Cottage Grove Ave., Chicago, Ill.
 Dietzgen Co., Eugene, 181 Monroe St., Chicago.
 Fritz & Goedel Mfg., Co., 100 Alabama St., Grand Rapids, Mich.
 Hanna Mfg. Co., Troy, N. Y.
 Keuffel & Esser Co., Hoboken, N. J.
 Kolesch & Co., 138 Fulton St., New York.
 Ledder & Probst, 387 Washington St., Boston.
 Lufkin Rule Co., Saginaw, Mich.
 Perrin, Seamans & Co., 57 Oliver St., Boston.
 Prince, L. M., 108 W. 4th St., Cincinnati, O.
 Seelig & Son, R., 170 East Madison St., Chicago, Ill.
 Surveyors Instrument Exchange, Philadelphia, Pa.
 Technical Supply Co., 46 East 14th St., N. Y.
 Wiebusch & Hilger, "Ltd.," 9 Murray St., N.Y.

Engineers (Civil and Consulting)

Foundation Co., The, 115 B'way, New York.

Engineers' Supplies

Powell Co., Wm., Cincinnati, Ohio.

Engines (Blowing)

Southwark Foundry & Machine Co., Phila., Pa.

Engines (Bridge-Erecting)

American Hoist & Derrick Co., St. Paul, Minn.
 Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.
 Contractors Plant Mfg. Co., Buffalo, N. Y.
 Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
 Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Mention the "Record" when writing.

Mead-Morrison Mfg. Co., Cambridge, Mass.
Shaw Co., Willis, 171 La Salle St., Chicago.

Engines (Compressed Air)

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Dake Engine Co., Grand Haven, Mich.
Ingersoll-Rand Co., 11 B'way, New York.

Engines (Compound)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Engines (Corliss)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Wisconsin Engine Co., Corliss, Wis.

Engines (Deep Well Pumping)

Abenague Machine Works, Westminster Station, Vt.
American Well Works, Aurora, Ill.
Dake Engine Co., Grand Haven, Mich.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Ingersoll-Rand Co., 11 Broadway, N. Y.
Mietz, August, 128-138 Mott St., New York.
Root & Van Dervoort Engineering Co., East Moline, Ill.
Union Steam Pump Co., Battle Creek, Mich.
U. S. Wind, Engine & Pump Co., 280 Water St., Batavia, Ill.
Westinghouse Machine Co., Pittsburg, Pa.

Engines (Direct-Connected and Belted)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Engines (Gas)

Allis-Chalmers Co., Milwaukee, Wis.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Wisconsin Engine Co., Corliss, Wis.

Engines (Gas, Gasoline, Oil)

Abenague Machine Works, Westminster Station, Vt.
Ashland Steel Range & Mfg. Co., The, Ashland, Ohio.
Blaisdell Machinery Co., The, Bradford, Pa.
Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Erie Pump & Engine Co., Erie, Pa.
Flint & Walling Mfg. Co., Kendallville, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
Lawrence Machine Co., Lawrence, Mass.
Mietz, August, 128-138 Mott St., New York.

Mention the "Record" when writing.

Moore & Sons Corp., Sam'l L., Front &
Franklin Sts., Elizabethport, N. J.
Power & Mining Machinery Co., Cudahy, Wis.
Root & Van Dervoort Engineering Co., East
Moline, Ill.
Struthers-Wells Co., Warren, Pa.
Sturtevant Mill Co., Harrison Sq., Boston.
U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Westinghouse Machine Co., Pittsburg, Pa.

Engines (Gasoline Pumping)

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Engines (High-Duty Pumping)

Allis-Chalmers Co., Milwaukee, Wis.
Chicago House Wrecking Co., West 35th &
Iron Sts., Chicago, Ill.
Erie Pump & Engine Co., Erie, Pa.
Lawrence Machine Co., Lawrence, Mass.
Minneapolis Steel & Machinery Co., Minnea-
polis, Minn.
Prescott Steam Pump Co., Fred. M., Mil-
waukee, Wis.
Southwark Foundry & Machine Co., Phila-
delphia, Pa.
Tod Co., William, Youngstown, Ohio.
Traylor Engineering Co., 2 Rector St., N. Y.
Westinghouse Machine Co., Pittsburg, Pa.
Wisconsin Engine Co., Corliss, Wis.

Engines (Hoisting)

Abenague Machine Works, Westminster Sta-
tion, Vt.
Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Bacon, Earle C., Havemeyer Bldg., N. Y.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Broderick & Bascom Rope Co., St. Louis, Mo.
Brown Hoisting Machinery Co., The, 4403 St.
Clair Ave., Cleveland, Ohio.
Byers Machine Co., The John F., Ravenna, O.
Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.
Chicago House Wrecking Co., West 35th &
Iron Sts., Chicago, Ill.
Contractors Plant Mfg. Co., Buffalo, N. Y.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Machine Co., Niagara Falls,
N. Y.
Foote Concrete Machinery Co., 184 La Salle
St., Chicago, Ill.
Hayward Co., The, 97 Cedar St., N. Y.
Hough Co., William B., 1336-7 Monadnock
Block, Chicago, Ill.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Lombard Iron W'ks & Supply Co., Augusta, Ga.
McCoy Co., Henry J., 65-67 Dey St., N. Y.

Mention the "Record" when writing.

Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mietz, August, 128-138 Mott St., New York.
 Monighan Machine Co., 809-823 Carroll Ave.,
 Chicago, Ill.
 Morris & Co., I. P., Philadelphia, Pa.
 Northern Engineering Works, Detroit, Mich.
 Perrin, Seamans & Co., 57 Oliver St., Boston.
 Ransome Concrete Machinery Co., Dunellen,
 N. J.
 Reliance Machine & Tool Works, St. Louis, Mo.
 Root & Van Dervoort Engineering Co., East
 Moline, Ill.
 Shaw Co., Willis, 171 La Salle St., Chicago.
 Traylor Engineering Co., 2 Rector St., N. Y.
 Wilcox Co., W. H., Binghamton, N. Y.
 Williamson Bros. Co., Aramingo Ave. & Cum-
 berland St., Philadelphia, Pa.
 Wisconsin Engine Co., Corliss, Wis.

Engines (Hot-Air)

Rider-Ericsson Engine Co., 35 Warren St., N.Y.

Engines (Marine)

Mietz, August, 128-138 Mott St., New York.

Engines (Oil)

Marine Engine & Machine Co., 230 West 13th
 St. New York.
 Moore & Sons, Corp., Sam'l L., Front &
 Franklin Sts., Elizabethport, N. J.

Engines (Portable)

Abenague Machine Works, Westminster Sta-
 tion, Vt.
 Bacon, Earle C., Havemeyer Bldg., N. Y.
 Chicago House Wrecking Co., West 35th &
 Iron Sts., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Erie Pump & Engine Co., Erie, Pa.
 Mietz, August, 128-138 Mott St., New York.
 Monarch Road Roller Co., Groton, Tompkins
 Co., New York.
 Moore & Sons, Corp., Sam'l L., Front & Frank-
 lin Sts., Elizabethport, N. J.
 Morris Machine Works, Baldwinsville, N. Y.
 Perrin, Seamans & Co., 57 Oliver St., Boston.
 Root & Van Dervoort Engineering Co., East
 Moline, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston.

Engines (Reversing)

Southwark Foundry & Machine Co., Phila., Pa.

Engines (Roller-Mill)

Minneapolis Steel & Machinery Co., Minnea-
 polis, Minn.

Engines (Stationary)

Abenague Machine Works, Westminster Sta-
 tion, Vt.
 Bacon, Earle C., Havemeyer, Bldg., N. Y.
 Buffalo Forge Co., Buffalo, N. Y.

Mention the "Record" when writing.

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
 Dake Engine Co., Grand Haven, Mich.
 Erie Pump & Engine Co., Erie, Pa.
 Granger Co., A. D., 90 West St., New York.
 Green Fuel Economizer Co., Matteawan, N. Y.
 Lawrence Machine Co., Lawrence, Mass.
 Leffel & Co., James, Springfield, Ohio.
 Mietz, August, 128-138 Mott St., New York.
 Moore & Sons Corp., Sam'l L., Front & Franklin Sts., Elizabethport, N. J.
 Morris Machine Works, Baldwinsville, N. Y.
 Root & Van Dervoort Engineering Co., East Moline, Ill.
 Southwark Foundry & Machine Co., Phila., Pa.
 Sturtevant Mill Co., Harrison Sq., Boston.
 Sturtevant Co., B. F., Hyde Park, Mass.
 Traylor Engineering Co., 2 Rector St., N. Y.
 Valley Iron Works, Williamsport, Pa.
 Westinghouse Machine Co., Pittsburg, Pa.
 York Manufacturing Co., York, Pa.

Engines (Steam)

Allis-Chalmers Co., Milwaukee, Wis.
 American Blower Co., Detroit, Mich.
 Bacon, Earle C., Havemeyer Bldg., N. Y.
 Buffalo Forge Co., Buffalo, N. Y.
 Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
 Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.
 Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
 Dake Engine Co., Grand Haven, Mich.
 Erie Mfg. & Supply Co., Erie, Pa.
 Erie Pump & Engine Co., Erie, Pa.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
 Green Fuel Economizer Co., Matteawan, N. Y.
 Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.
 International F. & Fireproofing Co., Columbus, Ohio.
 Lawrence Machine Co., Lawrence, Mass.
 McIntosh, Seymour & Co., 26 Cortl'dt St., N.Y.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Morris Machine Works, Baldwinsville, N. Y.
 New York Blower Co., Chicago, Ill.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Ridgway Dynamo & Engine Co., Ridgway, Pa.
 Southwark Foundry & Machine Co., Phila., Pa.
 Struthers-Wells Co., Warren, Pa.
 Sturtevant Mill Co., Harrison Sq., Boston.
 Sturtevant Co., B. F., Hyde Park, Mass.

Mention the "Record" when writing.

Tod Co., William, Youngstown, Ohio.
Traylor Engineering Co., 2 Rector St., N. Y.
Valley Iron Works, Williamsport, Pa.
Westinghouse Machine Co., Pittsburg, Pa.
Wetherill Bros. Machine Co., Chester, Pa.
Wilcox Co., W. H., Binghamton, N. Y.
Wisconsin Engine Co., Corliss, Wis.

Engines (Traction)

Avery Mfg. Co., Peoria, Ill.
Chicago House Wrecking Co., West 35th &
Iron Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
Mietz, August, 128-138 Mott St., New York.
Monarch Road Roller Co., Groton, Tompkins
Co., New York.
Shaw Co., Willis, 171 La Salle St., Chicago.
Sturtevant Mill Co., Harrison Sq., Boston.

Engines (Traction-Gasoline)

Abenague Machine Works, Westminster Sta-
tion, Vt.

Evaporators

Williamson Bros., Co., Aramingo Ave., & Cum-
berland Sts., Philadelphia, Pa.

Excavating Machinery

Atlantic Gulf & Pacific Co., Park Row Bldg.,
New York.
Austin Drainage Excavator Co., F. C., Rail-
way Exchange, Chicago, Ill.
Bucyrus Co., The, So. Milwaukee, Wis.
Carson Trench Machine Co., 16 Dorrance St.,
Boston, Mass.
Chandler, Geo. M., 42-9 North Illinois St., In-
dianapolis, Ind.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Hayward Co., The, 97 Cedar St., New York.
Hough Co., William B., 1336-7 Monadnock
Block, Chicago, Ill.
Indiana Road Machine Co., Fort Wayne, Ind.
Ingersoll-Rand Co., 11 B'way, New York.
Jackson, George W., "Inc.," 169-179 W. Jack-
son Boulevard, Chicago, Ill.
Kiesler Co., The, 82 Pratt St., Chicago, Ill.
Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Marion Steam Shovel Co., The, 640 West Cen-
ter St., Marion, Ohio.
Monighan Machine Co., 809-823 Carroll Ave.,
Chicago, Ill.
Municipal Engineering & Contracting Co.,
Jackson Boulevard & Michigan Ave., Chi-
cago, Ill.

Mention the "Record" when writing.

Parsons Co., G. W., 306 Observatory Bldg.,
Des Moines, Ia.
Potomac Dredging Co., 24-25 Home Life Bldg.,
Washington, D. C.
Power & Mining Machinery Co., Cudahy, Wis.
Shaw Co., Willis, 171 La Salle St., Chicago.
Standard Sand & Machine Co., Cleveland, O.
Thew Automatic Shovel Co., Lorain, Ohio.
Webster Mfg. Co., 1075 West 15th St., Chi-
cago, Ill.; 88-90 Reade St., New York.
Wetherill Bros. Machine Co., Chester, Pa.

Exhaust Fans and Blowers (Motor-Driven)

General Electric Co., Schenectady, N. Y.

Exhaust Heads

American Spiral Pipe Works, 14th St. & 48th
Ave., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Burt Mfg. Co., Akron, Ohio.
Clow & Sons, James B., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.

Exhausters, Planing-Mill

Green Fuel Economizer Co., Matteawan, N.Y.

Expanded Metal (See Fireproof Construction)

Associated Expanded Metal Cos., 221 Fifth
Ave., New York.
Berger Mfg. Co., The, Canton, Ohio.
Darby & Sons Co., "Inc.," Edw., Phila., Pa.
Garry Iron & Steel Co., Cleveland, Ohio.
General Fireproofing Co., The, Youngstown,
Ohio.
Hough Co., William B., 1336-7 Monadnock
Block, Chicago, Ill.
Northwestern Expanded Metal Co., Old Colony
Bldg., Chicago, Ill.
Roebling Construction Co., The, Fuller Bldg.,
B'way, & 23d St., New York.
Trussed Concrete Steel Co., Detroit, Mich.

Expanded Metal Lockers

Darby & Sons Co., "Inc.," Edw., Phila., Pa.
General Fireproofing Co., The, Youngstown, O.
Merritt & Co., 1015 Ridge Ave., Phila., Pa.

Expansion Joints

American District Steam Co., Lockport, N. Y.

Explorers

Ætna Powder Co., The, Chicago, Ill.
du Pont de Nemours Powder Co., E. I., Wil-
mington, Dl.
Ingersoll-Rand Co., 11 B'way, New York.
McKiernan Drill Co., 115 B'way, New York.
National Powder Co., 353 Fifth Ave., N. Y.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Sinnamahoning Powder Mfg. Co., Emporium,
Pa.

Mention the "Record" when writing.

Explosives

Ætna Powder Co., The, Chicago, Ill.
du Pont de Nemours Powder Co., E. I., Wilmington, Del.
Ingersoll-Rand Co., 11 B'way, New York.
Keystone Powder Mfg. Co., Emporium, Pa.
National Powder Co., 353 Fifth Ave., N. Y.
Sinnamahoning Powder Mfg. Co., Emporium, Pa.

Eyes (Wire Rope)

Leschen & Sons Rope Co., A., St. Louis, Mo.

Factory Chimneys

Heinicke, H. R., 147 Fourth Ave., New York.

Fan System of Heating and Ventilating

American Blower Co., Detroit, Mich.

Fans

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
D'Olier Engineering Co., 121 South 11th St., Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
Green Fuel Economizer Co., Matteawan, N.Y.
International Electric & Engineering Co., 148 Chambers St., New York.
New York Blower Co., Chicago, Ill.
Raymond Bros. Impact Pulverizer Co., 143 Laflin St., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Traylor Engineering Co., 2 Rector St., N. Y.
Westinghouse Machine Co., Pittsburg, Pa.

Fans (Electric)

(Exhausts and Forced Draft)

C. & C. Electric Co., The, Garwood, N. J.
General Electric Company, Schenectady, N. Y.

Fasteners (Sheet Roofing)

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Feed-Water Heaters

Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.
Erie Mfg. & Supply Co., Erie, Pa.
Green Fuel Economizer Co., Matteawan, N. Y.
Kewanee Boiler Co., Kewanee, Ill.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Petroleum Iron Works Co., The, Sharon, Pa.
Pittsburg Filter Mfg. Co., Farmers Bank Bldg., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.
Sharon Boiler Works, Sharon, Pa.
Webster Co., Warren, Camden, N. J.
Williamson Bros. Co., Aramingo Ave., & Cumberland St., Philadelphia, Pa.

Mention the "Record" when writing.

Feed-Water Purifiers

Marion Incline Filter & Heater Co., Marion, O.

Felt

Bayer, J. C., Front & Market Sts., Portland, Ore.

Warren-Ehret Co., 1204 Land Title Bldg., Philadelphia, Pa.

Fence and Railing

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.

Darby & Sons Co., "Inc.," Edw., Phila., Pa.

Douglas, Geo. B., 29 B'way, New York.

International F. & Fireproofing Co., Columbus, Ohio.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Whitehead & Kales Iron Works, Detroit, Mich.

Fence, Railing and Posts

Anchor Post Iron Works, 147 Nassau St., N. Y.

Ferry Ropes and Travelers

Leschen & Sons Rope Co., A., St. Louis, Mo.

Filing Cases

General Fireproofing Co., The, Youngstown, Ohio.

Filing Cases (Metal)

Art Metal Construction Co., Jamestown, N. Y.

Filters (Feed-Water)

Pittsburg Filter Mfg. Co., Farmers Bank Bldg., Pittsburg, Pa.

Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Filters (Rate-Controlling)

Simplex Valve & Meter Co., 112 North Broad St., Philadelphia, Pa.

Filters (Water)

Bunting Co., J. E., Flatiron Bldg., N. Y.

Lynn Filter Mfg. Co., Cincinnati, Ohio.

New York Cont. Jewell Filter Co., 15 Broad St., New York.

Pittsburg Filter Mfg. Co., Farmers Bank Bldg., Pittsburg, Pa.

Roberts Filter Mfg. Co., Phila., Pa.

Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Simplex Valve & Meter Co., 112 North Broad St., Phila., Pa.

U. S. Cast Iron Pipe & Foundry Co., 71 B'way, New York.

Fire Brick and Fire Clay

Buckeye Fire Clay Co., Uhrichville, Ohio.

Evans & Howard Fire Brick Co., St. Louis, Mo.

Patton Clay Mfg. Co., Patton, Penna.

Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.

Robinson Clay Product Co. of N. Y., Flatiron Bldg., New York.

Mention the "Record" when writing.

Upton, F. R., 9 Clinton St., Newark, N. J.
Warner Co., Charles, Wilmington, Del.

Fire Department Supplies

International Electric & Engineering Co., 148
Chambers St., New York.

Fire Escapes (Steel)

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Fire Extinguishers

Badger & Sons Co., E. B., 63-75 Pitts St.,
Boston, Mass.

Grosche & Co., Bruno, 23 Jones Lane, N. Y.
International Electric & Engineering Co., 148
Chambers St., New York.

Johns-Manville Co., H. W., 100 William St.,
New York.

Kanawha Chemical Engine Mfg. Co., Charles-
ton, W. Va.

Fireproof Construction

Aberthaw Construction Co., 8 Beacon St., Bos-
ton, Mass.

American Concrete-Steel Co., Union Bldg.,
Newark, N. J.

American System of Reinforcing, 189 La Salle
St., Chicago, Ill.

Associated Expanded Metal Cos., 221 Fifth
Ave., New York.

Bayer, J. C., Front & Market Sts., Portland,
Ore.

Bellefontaine Bridge & Steel Co., Bellefon-
taine, Ohio.

Belmont Iron Works, 22d St. & Washington
Ave., Philadelphia, Pa.

Berger Mfg. Co., The, Canton, Ohio.

Bunting Co., J. E., Flatiron Bldg., New York.

Clinton Wire Cloth Co., Clinton, Mass.

Darby & Sons Co., "Inc.," Edw., Phila., Pa.

Decatur Bridge Co., Decatur, Ill.

Expanded Metal & Corrugated Bar Co., Frisco
Bldg., St. Louis, Mo.

Ferro-Concrete Construction Co., Richmond &
Harriet Sts., Cincinnati, Ohio.

Gabriel Concrete Reinforcement Co., 1206-1208
Penobscot Bldg., Detroit, Mich.

Garry Iron & Steel Co., Cleveland, Ohio.

General Fireproofing Co., The, Youngstown, O.

Goff-Horner & Co., "Ltd.," Frick Bldg., Pitts-
burg, Pa.

Hennebique Construction Co., 1170 B'way, N.Y.

Hough Co., William B., 1336-7 Monadnock
Block, Chicago, Ill.

International F. & Fireproofing Co., Columbus,
Ohio.

Jackson, George W., "Inc.," 169-179 W. Jack-
son Boulevard, Chicago, Ill.

Johns-Manville Co., H. W., 100 William St.,
New York.

Mention the "Record" when writing.

Maxwell Concrete Steel Co., 516 Penobscot Bldg., Detroit, Mich.
 National Fire Proofing Co., 115 Adams St., Chicago, Ill.
 Noelke-Richards Iron Works, Indianapolis, Ind.
 Northwestern Expanded Metal Co., Old Colony Bldg., Chicago, Ill.
 Portland Iron & Steel Co., Board of Trade Bldg., Boston, Mass.
 Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.
 Raymond Concrete Pile Co., 135 Adams St., Chicago, Ill.
 Riverside Bridge Co., Martins Ferry, Ohio.
 Rodgers Company, The, Monadnock Block, Chicago, Ill.
 Roebling Construction Co., The, Fuller Bldg., B'way & 23d St., New York.
 Standard Concrete Steel Co., 31st, 32d Sts., East River, New York.
 Trussed Concrete Steel Co., Detroit, Mich.
 Turner Construction Co., 11 B'way, New York.
 Whitehead & Kales Iron Works, Detroit, Mich.

Fireproof Doors

Bayer, J. C., Front & Market Sts., Portland, Ore.
 Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
 Berger Mfg. Co., The, Canton, Ohio.
 Decatur Bridge Co., Decatur, Ill.
 General Fireproofing Co., The, Youngstown, O.
 Johns-Manville Co., H. W., 100 William St., New York.
 Lupton's Sons Co., David, Phila., Pa.
 Mesker & Bro., 421 So. 6th St., St. Louis, Mo.
 Winslow Co., E. J., 138 Jackson Boulevard, Chicago, Ill.

Fireproof Windows

Bayer, J. C., Front & Market Sts., Portland, Ore.
 Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
 Lupton's Sons Co., David, Phila., Pa.
 Mesker & Bro., 421 So. 6th St., St. Louis, Mo.
 Mullins Co., W.H., 342 Franklin St., Salem, O.
 Van Noorden Co., E., 950 Massachusetts Ave., Boston, Mass.

Fireproofing Materials

Berger Mfg. Co., The, Canton, Ohio.
 Calumet Steel Co., Commercial Nat'l Bank Bldg., Chicago, Ill.
 Expanded Metal & Corrugated Bar Co., Frisco Bldg., St. Louis, Mo.
 General Fireproofing Co., The, Youngstown, Ohio.
 Goff Horner & Co., "Ltd.," Frick Bldg., Pittsburgh, Pa.
 Grosche & Co., Bruno, 23 Jones Lane, N. Y.

Mention the "Record" when writing.

International F. & Fireproofing Co., Columbus, Ohio.

Johns-Manville Co., H. W., 100 William St., New York.

Noelke-Richards Iron Works, Indianapolis, Ind.
Patton Clay Mfg. Co., Patton, Pa.

Portland Iron & Steel Co., Board of Trade Bldg., Boston, Mass.

Potomac Dredging Co., 24-25 Home Life Bldg., Washington, D. C.

Standard Concrete Steel Co., 31st, 32d Sts., East River, New York.

Trussed Concrete Steel Co., Detroit, Mich.

Warren-Ehret Co., 1204 Land Title Bldg., Philadelphia, Pa.

Fittings (Wire Rope)

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Fixtures (Electric and Gas)

International Electric & Engineering Co., 148 Chambers St., New York.

Flanges

American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.

Scully Steel & Iron Co., Chicago, Ill.

Flanges (Steel)

American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.

Floor Plates

Scully Steel & Iron Co., Chicago, Ill.

Floor Stands

Chapman Valve Mfg. Co., Indian Orchard, Mass.

Flooring (Mastic)

Standard Asphalt & Rubber Co., 944 First Nat'l Bank Bldg., Chicago, Ill.

Flue Linings

Bayer, J. C., Front and Market Sts., Portland, Ore.

Buckeye Fire Clay Co., Uhrichville, Ohio.

Johns-Manville Co., H. W., 100 Wm. St., N. Y.

N. Y. State Sewer Pipe Co., Rochester, N. Y.

Patton Clay Mfg. Co., Patton, Pa.

Robinson Clay Product Co. of New York, Flatiron Bldg., New York.

Warner Co., Charles, Wilmington, Del.

Fly-Wheels

Southwark Foundry & Machine Co., Phila.

Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.

Forced-Draft Equipment

American Blower Co., Detroit, Mich.

Forges

Scully Steel & Iron Co., Chicago, Ill.

Mention the "Record" when writing.

Forges (Rivet-Heating)

Buffalo Forge Co., Buffalo, N. Y.
Ingersoll-Rand Co., 11 B'way, New York.
Perrin, Seamans & Co., 57 Oliver St., Boston.

Forges (Stationary and Portable)

Buffalo Forge Co., Buffalo, N. Y.
Ingersoll-Rand Co., 11 B'way, New York.
New York Blower Co., Chicago, Ill.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Sturtevant Co., B. F., Hyde Park, Mass.

Forging Machines

Scully Steel & Iron Co., Chicago, Ill.

Forgings (Steel)

American Spiral Pipe Works, 14th St. and 48th Ave., Chicago, Ill.
Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Douglas, Geo. B., 29 B'way, New York
Mesker & Bro., 421 So. 6th St., St. Louis, Mo.
Pennsylvania Steel Co., The, Philadelphia, Pa.
Pittsburg Mfg. Co., Pittsburg, Pa.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Prosser & Sons, Thos. ("Krupp"), 15 Gold St., New York.
Traylor Engineering Co., 2 Rector St., N. Y.
Williams & Co., J. H., Brooklyn, N. Y.

Forgings (Steel, Heavy)

Edge Moor Iron Co., Edge Moor, Del.

Forgings (Steel), (Heavy and Light)

Patterson Co., W. W., Pittsburg, Pa.

Foundations

Clinton Bridge & Iron Works, Clinton, Ia.
Foundation Co., The, 115 B'way, New York.
Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.
O'Rourke Engineering Construction Co., 345 Fifth Ave., New York.
Pneumatic Caisson Co., Troy, N. Y.
Raymond Concrete Pile Co., 135 Adams St., Chicago, Ill.
Rodgers Co., The, Monadnock Block, Chicago.
Rogers Co., J. S., Moorestown, N. J.
Scully Foundation & Transportation Co., John T., 84 First St., Cambridge, Mass.

Foundations (Reinforced Concrete)

Hennebique Construction Co., 1170 B'way, New York.

Foundry Equipment and Supplies

American Blower Co., Detroit, Mich.
Cleveland Crane & Car Co., Wickliffe, Ohio.
Ingersoll-Rand Co., 11 B'way, New York.

Mention the "Record" when writing.

Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.
Lombard Iron Works & Supply Co., Augusta,
Ga.
Northern Engineering Works, Detroit, Mich.
Standard Sand & Machine Co., Cleveland, O.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Wiener Co., Ernst, 168 Morris Bldg., N. Y.
Youngstown Car Mfg. Co., Youngstown, O.

Fountains (Lawn and Drinking)

Stewart Iron Works Co., The, Cincinnati, O.

Frogs and Switches (Railway)

Douglas, Geo. B., 29 B'way, New York.
Indianapolis Switch & Frog Co., Springfield,
Ohio.
Jackson, George W., "Inc.," 169-179 W. Jack-
son Boulevard, Chicago, Ill.
Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.
Pennsylvania Steel Co., The, Phila., Pa.
Wiener Co., Ernst, 168 Morris Bldg., N. Y.
Wonham-Magor Engineer's Works, 29 B'way,
New York.
Youngstown Car Mfg. Co., Youngstown, O.

Fuel Economizers

Green Fuel Economizer Co., Matteawan, N.Y.
Sturtevant Co., B. F., Hyde Park, Mass.

Furnaces (Garbage and Refuse)

Pittsburg Tubular Steel Whiffletree Co., Pitts-
burg, Pa.

Furnaces (Lead)

McCoy Co., Henry J., 65-67 Dey St., N. Y.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Smith Mfg. Co., A. P., Passaic Ave., New-
ark, N. J.
Union Iron Works, The, Hoboken, N. J.

Furnaces (Rivet)

Scully Steel & Iron Co., Chicago, Ill.

Furnaces (Smokeless)

Green Fuel Economizer Co., Matteawan, N.Y.
Murphy Iron Works, Detroit, Mich.

Furniture and Office Fittings

Berger Mfg. Co., The, Canton, Ohio.
Chicago House Wrecking Co., W. 35th and
Iron Sts., Chicago, Ill.
General Fireproofing Co., The, Youngstown,
Ohio.

Fuse

du Pont de Nemours Powder Co., E. I., Wil-
mington, Del.
Johns-Manville Co., H. W., 100 Wm. St., N.Y.
McKiernan Drill Co., 115 B'way, N. Y.
National Powder Co., 353 Fifth Ave., N. Y.
Sinnamahoning Powder Mfg. Co., Emporium,
Pa.

Mention the "Record" when writing.

Gages (Smith Curve-Lining)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Gages (Track)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Galvanized Angles, Bars, Channels, Etc.

Scully Steel & Iron Co., Chicago, Ill.

Garbage Crematories

Lewis & Kitchen, 433 Wabash Ave., Chicago.

Garbage Disposal (See Furnaces, Garbage and Refuse)

Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.

Garbage Wagons

Watson Wagon Co., Canastota, N. Y.

Gas Compressors

Ingersoll-Rand Co., 11 B'way, New York.

Gas Exhausters

American Blower Co., Detroit, Mich.

D'Olier Engineering Co., 121 South 11th St., Philadelphia, Pa.

Green Fuel Economizer Co., Matteawan, N.Y.

Power & Mining Machinery Co., Cudahy, Wis.

Sturtevant Co., B. F., Hyde Park, Mass.

Gas Holders

Petroleum Iron Works Co., The, Sharon, Pa.

Power & Mining Machinery Co., Cudahy, Wis.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Tippett & Wood, Phillipsburg, N. J.

Wood & Co., R. D., 400 Chestnut St., Phila.

Gas Machinery

D'Olier Engineering Co., 121 South 11th St., Philadelphia, Pa.

Green Fuel Economizer Co., Matteawan, N.Y.

Ingersoll-Rand Co., 11 B'way, New York.

Power & Mining Machinery Co., Cudahy, Wis.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Westinghouse Machine Co., Pittsburg, Pa.

Wisconsin Engine Co., Corliss, Wis.

Wood & Co., R. D., 400 Chestnut St., Phila.

Gas Producers

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Morgan Construction Co., Worcester, Mass.

Wood & Co., R. D., 400 Chestnut St., Phila.

Gas Scrubbers

Graver Tank Works, Wm., East Chicago, Ind.

Gas Works Construction

Riter-Conley Mfg. Co., Pittsburg, Pa.

Gaskets

American Spiral Pipe Works, 14th St. and 48th Ave., Chicago, Ill.

Mention the "Record" when writing.

Johns-Manville Co., H. W., 100 Wm. St., N.Y.
Power Specialty Co., 111 B'way, New York.

Gaskets (Copper)

American District Steam Co., Lockport, N. Y.

Gates and Valves

Clow & Sons, James B., Chicago, Ill.

Lombard Iron Works & Supply Co., Augusta,
Ga.

National Wood Pipe Co., 404 Equitable Bank
Bldg., Los Angeles, Cal.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Smith Co., S. Morgan, York, Pa.

U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Gates (Iron Entrance)

Anchor Post Iron Works, 147 Nassau St.,
New York.

Belmont Iron Works, 22d St. and Washington
Ave., Philadelphia, Pa.

Darby & Sons Co., "Inc.," Edw., Phila.

International F. & Fireproofing Co., Colum-
bus, Ohio.

Lombard Iron Works & Supply Co., Augusta,
Ga.

Stewart Iron Works Co., The, Cincinnati, O.

Whitehead & Kales Iron W'ks, Detroit, Mich.

Gates (Ore Bin)

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Gates (Sluice)

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Gauges (Loss of Head and Rate of Flow)

Simplex Valve & Meter Co., 112 N. Broad St.,
Philadelphia, Pa.

Gauges (Steam)

American District Steam Co., Lockport, N. Y.

Ashton Valve Co., The, Boston, Mass.

Clow & Sons, James B., Chicago, Ill.

Lombard Iron Works & Supply Co., Augusta,
Ga.

Lunkenheimer Co., Cincinnati, Ohio.

Manning, Maxwell & Moore, 85-89 Liberty
St., New York.

Gearings

Chain Belt Co., Milwaukee, Wis.

Lombard Iron Works & Supply Co., Augusta,
Ga.

Valley Iron Works, Williamsport, Pa.

Webster Mfg. Co., 1075 W. 15th St., Chicago,
Ill.; 88-90 Reade St., New York.

Wetherill Bros. Machine Co., Chester, Pa.

Gears (Cut)

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Mention the "Record" when writing.

Gears for Dredges

Bucyrus Co., The, So. Milwaukee, Wis.
Wetherill Bros. Machine Co., Chester, Pa.

Gears for Steam Shovels

Bucyrus Co., The, So. Milwaukee, Wis.

Gears (Machine Molded)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Gears (Worm)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Generating Sets

Mietz, August, 128-138 Mott St., New York.
Sturtevant Co., B. F., Hyde Park, Mass.

Generators (Electric)

(Direct and Alternating-Current)

General Electric Co., Schenectady, N. Y.

Girders

Riverside Bridge Co., Martin's Ferry, Ohio.

Gloves

Johns-Manville Co., H. W., 100 Wm. St., N.Y.

Governors (Water-Wheel)

Allis-Chalmers Co., Milwaukee, Wis.

Graders (Elevating)

Indiana Road Machine Co., Fort Wayne, Ind.

Graders and Scrapers, Earth (See Road Machinery)

Climax Road Machine Co., Marathon, N. Y.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.

Indiana Road Machine Co., Fort Wayne, Ind.

Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.

Shaw Co., Willis, 171 La Salle St., Chicago.

Grain Elevators and Storage Tanks

Chain Belt Co., Milwaukee, Wis.

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

Graver Tank Works, Wm., East Chicago, Ind.

Kenwood Bridge Co., 1416 First National Bank Bldg., Chicago, Ill.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Rodgers Co., The, Monadnock Block, Chicago, Ill.

Steel Storage & Elevator Construction Co., Buffalo, N. Y.

Grain Elevator Builders

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Mention the "Record" when writing.

Graphite

Clow & Sons, James B., Chicago, Ill.
Dixon's Crucible Co., Joseph, Jersey City,
N. J.

Grates

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Dake Engine Co., Grand Haven, Mich.
Green Engineering Co., Commercial National
Bank Bldg., Chicago, Ill.
Lombard Iron Works & Supply Co., Augusta,
Ga.
Walsh's Holyoke Steam Boiler Works, Hol-
yoke, Mass.
Willoughby, A. B., Philadelphia, Pa.

Gravel Roofing

Bayer, J. C., Front and Market Sts., Port-
land, Ore.

Gravity Incline Machines

Bacon, Earle C., Havemeyer Bldg., New York.

Grease Cups

Powell Co., William, Cincinnati, Ohio.

Greases

Dixon's Crucible Co., Joseph, Jersey City, N.J.

Grinders for Limestone, Gypsum, Lime, Clay and Shale, Coal, Green Garbage, Tankage or Bone, Brick- Bats, Cinders, Etc.

Allis-Chalmers Co., Milwaukee, Wis.
Kent Mill Co., 170 B'way, New York.
Lehigh Car, Wheel & Axle Works, Catasau-
qua, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Prosser & Sons, Thos. ("Krupp"), 15 Gold
St., New York.
Raymond Bros. Impact Pulverizer Co., 143
Laflin St., Chicago, Ill.
Smidth & Co., F. L., 39-41 Cortlandt St., N. Y.
Sturtevant Mill Co., Harrison Sq., Boston.
Valley Iron Works, Williamsport, Pa.
Williams Patent Crusher & Pulverizer Co.,
Chicago, Ill.

Grinding and Mixing Machinery

Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.
Chandler, Geo. M., 42-9 N. Illinois St., In-
dianapolis, Ind.
Dunning, W. D., Water St., Syracuse, N. Y.
Hough Co., William B., 1336-7 Monadnock
Block, Chicago, Ill.
Kent Mill Co., 170 B'way, New York.
Lehigh Car, Wheel & Axle Works, Catasau-
qua, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Ransome Concrete Machinery Co., Dunellen,
N. J.

Mention the "Record" when writing.

Raymond Bros. Impact Pulverizer Co., 143
Lafin St., Chicago, Ill.

Smidth & Co., F. L., 41 Cortlandt St., N. Y.

Sturtevant Mill Co., Harrison Sq., Boston.

Traylor Engineering Co., 2 Rector St., N. Y.

Grinding Machines (Portable, Pneumatic)

Independent Pneumatic Tool Co., Chicago and
New York.

Grinding Mills

Sturtevant Mill Co., Harrison Sq., Boston.

Grubbers

Leschen & Sons Rope Co., A., St. Louis, Mo.

Hammers

Scully Steel & Iron Co., Chicago, Ill.

Hammers (Drop)

Scully Steel & Iron Co., Chicago, Ill.

Hammers (Pneumatic)

Scully Steel & Iron Co., Chicago, Ill.

Hand Cars

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Hangers (Joist)

Belmont Iron Works, 22d St. and Washington
Ave., Philadelphia, Pa.

Lombard Iron Works & Supply Co., Augusta,
Ga.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Trussed Concrete Steel Co., Detroit, Mich.

Hawsers

Leschen & Sons Rope Co., A., St. Louis, Mo.

Hawsers (Manila)

American Mfg. Co., 65 Wall St., New York.

Heads (Flanged and Dished Boiler)

Scully Steel & Iron Co., Chicago, Ill.

Heaters (Air)

Green Fuel Economizer Co., Matteawan, N. Y.

Heaters (Electric)

General Electric Co., Schenectady, N. Y.

International Electric & Engineering Co., 148
Chambers St., New York.

Johns-Manville Co., H. W., 100 Wm. St., N.Y.

Heaters (Feed-Water)

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Heaters (Hot-Blast)

Green Fuel Economizer Co., Matteawan, N. Y.

Heating and Ventilating Mach'y

American Blower Co., Detroit, Mich.

American District Steam Co., Lockport, N. Y.

Bayer, J. C., Front and Market Sts., Port-
land, Ore.

Clow & Sons, James B., Chicago, Ill.

Mention the "Record" when writing.

Green Fuel Economizer Co., Matteawan, N. Y.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.

Heating and Ventilating Systems

Andrews & Johnson Co., Chicago, Ill.
Webster Co., Warren, Camden, N. J.

Hoist and Grab Hooks

Patterson Co., W. W., Pittsburg, Pa.

Hoisting Rope

American Mfg. Co., 65 Wall St., New York.

Hoists (Chain)

Chisholm & Moore Mfg. Co., Cleveland, O.
Reading Crane & Hoist Works, Reading, Pa.

Hoists (Chain and Rope)

American Steel & Wire Co., Commercial Nat'l
Bank Bldg., Chicago, Ill.

Hoists (Electric)

Allis-Chalmers Co., Milwaukee, Wis.
Bacon, Earle C., Havemeyer Bldg., N. Y.
Brown Hoisting Machinery Co., The, 4403 St.
Clair Ave., Cleveland, Ohio.
C. & C. Electric Co., The, Garwood, N. J.
Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.
Cleveland Crane & Car Co., Wickliffe, Ohio.
Contractors Plant Mfg. Co., Buffalo, N. Y.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Dobbie Foundry & Mach. Co., Niagara Falls,
N. Y.

General Electric Co., Schenectady, N. Y.
Grable-Dunn Co., The, 19 Huron St., Chicago.
Hayward Co., The, 97 Cedar St., New York.
Hough Co., William B., 1336-7 Monadnock
Block, Chicago, Ill.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Manning, Maxwell & Moore, 85-89 Liberty St.,
New York.

Maris Bros., 56th and Gray's Ave., Phila.
Mead-Morrison Mfg. Co., Cambridge, Mass.
New York Cableway & Engineering Co., 2
Rector St., New York.

Northern Engineering Works, Detroit, Mich.
Parker Hoist & Machine Co., 971 N. Francisco
Ave., Chicago, Ill.

Perrin, Seamans & Co., 57 Oliver St., Boston.
Scully Steel & Iron Co., Chicago, Ill.
Williamson Bros. Co., Aramingo Ave. and
Cumberland St., Philadelphia, Pa.

Wonham-Magor Engineering Works, 29 B'way,
New York.

Hoists (Gasoline)

Abenague Machine Works, Westminster Sta-
tion, Vt.
Root & Van Dervoort Engineering Co., East
Moline, Ill.

Mention the "Record" when writing.

Hoists (Hand)

Scully Steel & Iron Co., Chicago, Ill.

Hoists (Head Gate)

Smith Co., S. Morgan, York, Pa.

Hoists (Pneumatic)

Brown Hoisting Machinery Co., The, 4403 St. Clair Ave., Cleveland, Ohio.

Contractors Plant Mfg. Co., Buffalo, N. Y.

Dake Engine Co., Grand Haven, Mich.

Independent Pneumatic Tool Co., Chicago and New York.

Ingersoll-Rand Co., 11 B'way, New York.

New York Cableway & Engineering Co., 2 Rector St., New York.

Northern Engineering Works, Detroit, Mich.

Scully Steel & Iron Co., Chicago, Ill.

Wonham-Magor Engineering Works, 29 B'way, New York.

Hoists (Steam)

Abenague Machine Works, Westminster Station, Vt.

Allis-Chalmers Co., Milwaukee, Wis.

American Hoist & Derrick Co., St. Paul, Minn.

Bacon, Earle C., Havemeyer Bldg., New York

Brown Hoisting Machinery Co., The, 4403 St. Clair Ave., Cleveland, Ohio.

Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.

Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.

Cleveland Crane & Car Co., Wickliffe, Ohio.

Contractors Plant Mfg. Co., Buffalo, N. Y.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Dake Engine Co., Grand Haven, Mich.

Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

McCoy Co., Henry J., 65-67 Dey St., N. Y.

Mead-Morrison Mfg. Co., Cambridge, Mass.

Monighan Machine Co., 809-823 Carroll Ave., Chicago, Ill.

New York Cableway & Engineering Co., 2 Rector St., New York.

Northern Engineering Works, Detroit, Mich.

Reliance Mach. & Tool Works, St. Louis, Mo.

Shaw Co., Willis, 171 La Salle St., Chicago.

Traylor Engineering Co., 2 Rector St., N. Y.

Wilcox Co., W. H., Binghamton, N. Y.

Williamson Bros. Co., Aramingo Ave. and Cumberland St., Philadelphia, Pa.

Hooks (Wire Rope)

Leschen & Sons Rope Co., A., St. Louis, Mo.

Hose

Chicago House Wrecking Co., West 35th and Iron Sts., Chicago, Ill.

Mention the "Record" when writing.

Clow & Sons, James B., Chicago, Ill.
Edson Mfg. Co., 255-257 Atlantic Ave., Boston.
Ingersoll-Rand Co., 11 B'way, New York.
International Electric & Engineering Co., 148
Chambers St., New York.
McKiernan Drill Co., 115 B'way, New York.
Perrin, Seamans & Co., 57 Oliver St., Boston.
U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Hose Attachments

Scully Steel & Iron Co., Chicago, Ill.

Hose (Steel Armor Protected)

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
International Electric & Engineering Co., 148
Chambers St., New York.
McCoy Co., Henry J., 65-67 Dey St., N. Y.

House Moving

Eichleay, Jr., Co., John, Pittsburg, Pa.

Hydrants

Chapman Valve Mfg. Co., Indian Orchard,
Mass.
Chicago House Wrecking Co., West 35th and
Iron Sts., Chicago, Ill.
Clow & Sons, James B., Chicago, Ill.
Coffin Valve Co., Boston, Mass.
Dean Bros. Steam Pump Works, Indianapo-
lis, Ind.
Douglas, W. & B., Middletown, Conn.
Flint & Walling Mfg. Co., Kendallville, Ind.
Fox & Co., John, 253 B'way, New York.
National Wood Pipe Co., 404 Equitable Bank
Bldg., Los Angeles, Cal.
Norwood Engineering Co., Florence, Mass.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Smith Mfg. Co., A. P., Passaic Ave., Newark,
N. J.
U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.
Wood & Co., R. D., 400 Chestnut St., Phila.

Hydraulic Leather Packings

Detroit Leather Specialty Co., Michigan and
Beecher Aves., Detroit, Mich.

Hydraulic Machinery

Allis-Chalmers Co., Milwaukee, Wis.
Bucyrus Co., The, So. Milwaukee, Wis.
Cleveland Crane & Car Co., Wickliffe, Ohio.
Dayton Hydraulic Machinery Co., Dayton, O.
Dean Bros. Steam Pump Works, Indianapo-
lis, Ind.
Douglas, W. & B., Middletown, Conn.
Emerson Steam Pump Co., The, Alexandria,
Va.
Erie Pump & Engine Co., Erie, Pa.
Lawrence Machine Co., Lawrence, Mass.
Smith Co., S. Morgan, York, Pa.

Mention the "Record" when writing.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Watson-Stillman Co., The, 26 Cortlandt St., New York.

Wetherill Bros. Machine Co., Chester, Pa.

Wood & Co., R. D., 400 Chestnut St., Phila.

Ice and Refrigerating Machinery

Dayton Hydraulic Machinery Co., Dayton, O.

Lombard Iron Works & Supply Co., Augusta, Ga.

Moore & Sons Corp., Sam'l L., Front and Franklin Sts., Elizabethport, N. J.

Incline Cableway Engines

Bacon, Earle C., Havemeyer Bldg., N. Y.

Broderick & Bascom Rope Co., St. Louis, Mo.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Mead-Morrison Mfg. Co., Cambridge, Mass.

New York Cableway & Engineering Co., 2 Rector St., New York.

Indicator Posts

Chapman Valve Mfg. Co., Indian Orchard, Mass.

Induced Draft Equipment

American Blower Co., Detroit, Mich.

Information Service

Dodge Co., F. W., 11 E. 24th St., New York.

Injectors

American Injector Co., Congress & 7th Sts., Detroit, Mich.

Clow & Sons, James B., Chicago, Ill.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Hayden & Derby Mfg. Co., 85-89 Liberty St., New York.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Lunkenheimer Co., Cincinnati, Ohio.

Manning, Maxwell & Moore, 85-89 Liberty St., New York.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Powell Co., Wm., Cincinnati, Ohio.

Inspection of Building Materials

Rodgers Company, The, Monadnock Block, Chicago, Ill.

Instruments (Electric Measuring)

General Electric Company, Schenectady, N. Y.

Instruments—Engineering, Surveying and Mathematical (See Engineers' and Surveyors' Supplies)

Ainsworth & Sons, Wm., Denver, Colo.

Hanna Mfg. Co., Troy, N. Y.

Lufkin Rule Co., Saginaw, Mich.

Seelig & Son R., 170 East Madison St., Chicago, Ill.

Technical Supply Co., 46 East 14th St., N. Y.

Williams, Brown & Earl, 918 Chestnut St., Philadelphia.

Mention the "Record" when writing.

Instruments (Mining)

Seelig & Son, R., 170 East Madison St., Chicago, Ill.

Insulating Materials

Standard Asphalt & Rubber Co., 944 First Nat'l Bank Bldg., Chicago, Ill.

Insurance

Brown, Jr., A. S., 85 Water St., Boston.

Contractors & Builders Insurance Agency, "Inc.," American Nat'l Bank Bldg., Richmond, Va.

Ritch, William T., "Inc.," 1123 B'way, N. Y.

Iron and Steel

Scully Steel & Iron Co., Chicago, Ill.

Iron (Corrugated)

Bayer, J. C., Front & Market Sts., Portland, Ore.

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.

Berger Mfg. Co., The, Canton, Ohio.

Boston Bridge Works, 47 Winter St., Boston.

Buffalo Steel Co., Towanda, N. Y.

Chicago House Wrecking Co., W. 35th & Iron Sts., Chicago, Ill.

Garry Iron & Steel Co., Cleveland, Ohio.

Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Riverside Bridge Co., Martins Ferry, Ohio.

Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Wemlinger Steel Piling Co., 11 B'way, N. Y.

Iron Fence and Railings

Anchor Post Iron Works, 147 Nassau St., N. Y.

Belmont Iron Works, 22d St., & Washington Ave., Philadelphia, Pa.

Boston Bridge Works, 47 Winter St., Boston.

Darby & Sons Co., "Inc.," Edw., Phila., Pa.

Douglas, Geo. B., 29 B'way, New York.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Sharon Boiler Works, Sharon, Pa.

Stewart Iron Works Co., The, Cincinnati, O.

Whitehead & Kales Iron Works, Detroit, Mich.

Iron (Sheet)

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.

Berger Mfg. Co., The, Canton, Ohio.

Buffalo Steel Co., Towanda, N. Y.

Garry Iron & Steel Co., Cleveland, Ohio.

Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.

Kenwood Bridge Co., 1416 First Nat'l Bank Bldg., Chicago, Ill.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Ironwork (Architectural)

Anchor Post Iron Works, 147 Nassau St., N. Y.

Mention the "Record" when writing.

Bellefontaine Bridge & Steel Co., Bellefontaine,
 Ohio.
 Belmont Iron Works, 22d St. & Washington
 Ave., Philadelphia, Pa.
 Berlin Construction Co., Berlin, Conn.
 Brooks & Co., T. H., Cleveland, Ohio.
 Cleveland City Forge & Iron Co., Cleveland, O.
 Darby & Sons Co., "Inc.," Edw., Phila., Pa.
 Decatur Bridge Co., Decatur, Ill.
 Douglas, Geo. B., 29 B'way, New York.
 Insley Iron Works, Indianapolis, Ind.
 Kenwood Bridge Co., 1416 First Nat'l Bank
 Bldg., Chicago, Ill.
 Lombard Iron W'ks & Supply Co., Augusta, Ga.
 Mesker & Bro., 421 So. 6th St., St. Louis, Mo.
 Mullins Co., W. H., 342 Franklin St., Salem, O.
 Noelke-Richards Iron Works, Indianapolis, Ind.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Sharon Boiler Works, Sharon, Pa.
 Stewart Iron Works Co., The, Cincinnati, O.
 Whitehead & Kales Iron Works, Detroit, Mich.

Irrigation

Austin Drainage Excavator Co., F. C., Rail-
 way Exchange, Chicago, Ill.

Irrigation Supplies

National Wood Pipe Co., 404 Equitable Bank
 Bldg., Los Angeles, Cal.

Jacks

Dudgeon, Richard, Broome & Columbia Sts.,
 New York.

Jacks (Bridge)

Chicago House Wrecking Co., West 35th &
 Iron Sts., Chicago, Ill.
 Duff Mfg. Co., The, Pittsburg, Pa.
 Patterson Co., W. W., Pittsburg, Pa.

Jacks (Hydraulic)

Chicago House Wrecking Co., West 35th &
 Iron Sts., Chicago, Ill.
 Kalamazoo Railway Supply Co., Kalamazoo,
 Mich.
 Lombard Iron W'ks & Supply Co., Augusta, Ga.
 Watson-Stillman Co., The, 26 Cortl'dt St., N.Y.

Jacks (Jenne Friction)

Kalamazoo Railway Supply Co., Kalamazoo,
 Mich.

Jacks (Kalamazoo Ratchet)

Kalamazoo Railway Supply Co., Kalamazoo,
 Mich.

Jacks (Pneumatic)

Chicago House Wrecking Co., West 35th &
 Iron Sts., Chicago, Ill.
 Independent Pneumatic Tool Co., Chicago and
 New York.
 Watson-Stillman Co., The, 26 Cortl'dt St., N.Y.

Mention the "Record" when writing.

Jacks (Screw)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Scully Steel & Iron Co., Chicago, Ill.

Jacks (Track)

Duff Mfg. Co. The, Pittsburg, Pa.

Joints (Expansion)

American Spiral Pipe Works, 14th St., & 48th Ave., Chicago, Ill.

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.

Coffin Valve Co., Boston, Mass.

Coldwell-Wilcox Co., Newburgh, N. Y.

Power Specialty Co., 111 B'way, New York.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Joints (Expansion, Copper)

Badger & Sons Co., E. B., 63-75 Pitt St., Boston, Mass.

Joints (Flexible)

American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.

Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.

Coldwell-Wilcox Co., Newburgh, N. Y.

Ingersoll-Rand Co., 11 B'way, New York.

Walker Mfg. Co., Fenton, Mich.

Kettles (Melting)

Graver Tank Works, Wm., East Chicago, Ind.

Kettles (Steam Jacket, Copper)

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.

Kilns

Allis-Chalmers Co., Milwaukee, Wis.

East Jersey Pipe Co., 90 West St., N. Y.

Fuller Engineering Co., Allentown Nat'l Bank Bldg., Allentown, Pa.

Green Fuel Economizer Co., Matteawan, N. Y.

Power & Mining Machinery Co., Cudahy, Wis.

Smidth & Co., F. L., 39-41 Cortl'dt St., N. Y.

Sturtevant Co., B. F., Hyde Park, Mass.

Traylor Engineering Co., 2 Rector St., N. Y.

Trussed Concrete Steel Co., Detroit, Mich.

Kilns (Cement)

Graver Tank Works, Wm., East Chicago, Ind.

Riter-Conley Mfg., Co., Pittsburgh, Pa.

Kilns (Drying)

Graver Tank Works, Wm., East Chicago, Ind.

Kilns (Lime)

Graver Tank Works, Wm., East Chicago, Ind.

Kominuters

Smidth & Co., F. L., 39-41 Cortlandt St., N. Y.

Ladles (Foundry)

Clow & Sons, James B., Chicago, Ill.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Mention the "Record" when writing.

McNeil & Bro. Co., James, Pittsburg, Pa.
Petroleum Iron Works Co., The, Sharon, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Sharon, Pa.

Ladles (Foundry Cars)

Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.
Union Iron Works, The, Hoboken, N. J.

Ladles (Steel)

Petroleum Iron Works Co., The, Sharon, Pa.

Lamp Posts

Belmont Iron Works, 22d St. & Washington
Ave., Philadelphia, Pa.
Clow & Sons, James B., Chicago, Ill.
Donaldson Iron Co., Emaus, Lehigh County,
Pa.
Schreiber & Sons Co., L., Cincinnati, Ohio.

Lamps (Arc and Incandescent)

General Electric Company, Schenectady, N. Y.
International Electric & Engineering Co., 148
Chambers St., New York.
Johns-Manville Co., H. W., 100 Wm. St., N.Y.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Land Reclamation

Austin Drainage Excavator Co., F. C., Rail-
way Exchange, Chicago, Ill.

Lath (Metal)

Associated Expanded Metal Cos., 221 Fifth
Ave., New York.
Berger Mfg. Co., The, Canton, Ohio.
Calumet Steel Co., Commercial Nat'l Bank
Bldg., Chicago, Ill.
Garry Iron & Steel Co., Cleveland, Ohio.
General Fireproofing Co., The, Youngstown, O.
Manning, Maxwell & Moore, 85-89 Liberty St.,
New York.
Northwestern Expanded Metal Co., Old Colony
Bldg., Chicago, Ill.
Roebbling Construction Co., Fuller Bldg., B'way
& 23d St., New York.

Leadite

Leadite Co. of America, The, 1215 Filbert St.,
Philadelphia, Pa.

Lead Wool

New York Lead Wool Co., 93 Nassau St., N.Y.
United Lead Co., 100 William St., New York.

Letter Boxes

International Electric & Engineering Co., 148
Chambers St., New York.

Levels

Ainsworth & Sons, Wm., Denver, Colo.
Architects & Engineers Supply Co., 1010 Grand
Ave., Kansas City, Mo.

Mention the "Record" when writing.

Seelig & Son, R., 170 East Madison St., Chicago, Ill.

Levels (Track)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Lift Bridges

Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block, Chicago, Ill.

Lighthouse Foundation

Jackson, George W., "Inc.," 169-179 West Jackson Boulevard, Chicago, Ill.

Lights (Contractors')

Kitzen Hydro-Carbon Heating & Incandescent Lighting Co., 1230 Callowhill St., Phila.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Wells Light Mfg., Co., The, 14 Church St., New York.

Lights, Sidewalks and Vault (See Skylights)

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.

Berger Mfg. Co., The, Canton, Ohio.

Brooks & Co., T. H., Cleveland, Ohio.

Schreiber & Sons Co., L., Cincinnati, Ohio.

Lime

Warner Co., Charles, Wilmington, Del.

Lime (Hydrated)

Warner Co., Charles, Wilmington, Del.

Lock Boxes (Meter)

Buffalo Meter Co., 290-296 Terrace, Buffalo, N.Y.

Lockers

Berger Mfg. Co., The, Canton, Ohio.

Darby & Sons Co., "Inc.," Edw., Phila., Pa.

General Fireproofing Co., The, Youngstown, O.

Merritt & Co., 1015 Ridge Ave., Phila., Pa.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Locomotives (Compressed Air)

Davenport Locomotive Works, Davenport, Ia.

Porter Co., H. K., Union Bank Bldg., Pittsburgh, Pa.

Wonham-Magor Engineering Works, 29 B'way, New York.

Locomotives (Dinkey)

American Locomotive Co., 111 B'way, N. Y.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Davenport Locomotive Works, Davenport, Ia.

Porter Co., H. K., Union Bank Bldg., Pittsburgh, Pa.

Shaw Co., Willis, 171 La Salle St., Chicago, Ill.

Vulcan Iron Works, Wilkes-Barre, Pa.

Wiener Company, Ernst, 168 Morris Bldg. N.Y.

Mention the "Record" when writing.

Wonham-Magor Engineering Works, 29 B'way,
New York.

Locomotives (Electric)

American Locomotive Co., 111 B'way, N. Y.
Davenport Locomotive Works, Davenport, Ia.
General Electric Company, Schenectady, N.Y.
Northern Engineering Works, Detroit, Mich.

Locomotives (Electric and Battery)

Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Locomotives (Electric Mining)

General Electric Company, Schenectady, N.Y.

Locomotives (Gasoline)

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Locomotives (Industrial and Light)

American Locomotive Co., 111 B'way, N. Y.
Chandler, Geo. M., 42-9 North Illinois St.,
Indianapolis, Ind.

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Davenport Locomotive Works, Davenport, Ia.
Hough Co., William B., 1336-7 Monadnock
Block, Chicago, Ill.

McCoy Co., Henry J., 65-67 Dey St., N. Y.

Mead-Morrison Mfg. Co., Cambridge, Mass.

Porter Co., H. K., Union Bank Bldg., Pitts-
burg, Pa.

Vulcan Iron Works, Wilkes-Barre, Pa.

Wiener Company, Ernst, 168 Morris Bldg., N.Y.

Wonham-Magor Engineering Works, 29 B'way,
New York.

Locomotives (Steam)

American Locomotive Co., 111 B'way, N. Y.

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Davenport Locomotive Works, Davenport, Ia.

Porter Co., H. K., Union Bank Bldg., Pitts-
burg, Pa.

Shaw Co., Willis, 171 La Salle St., Chicago, Ill.

Vulcan Iron Works, Wilkes-Barre, Pa.

Wonham-Magor Engineering Works, 29 B'way,
New York.

Locomotives (Traction)

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Monarch Road Roller Co., Groton, Tompkins
Co., New York.

Vulcan Iron Works, Wilkes-Barre, Pa.

Logging Outfits

Broderick & Bascom Rope Co., St. Louis, Mo.

Brown Hoisting Machinery Co., The, 4403 St.
Clair Ave., Cleveland, Ohio.

Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.

Leschen & Sons Rope Co., A., St. Louis, Mo.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Mention the "Record" when writing.

Mead-Morrison Mfg. Co., Cambridge, Mass.
Monighan Machine Co., 809-823 Carroll Ave.,
Chicago, Ill.

Watson-Stillman Co., The, 26 Cortl'dt St., N.Y.
Wiener Company, Ernst, 168 Morris Bldg., N.Y.
Youngstown Car Mfg. Co., Youngstown, O.

Log Loaders

Marion Steam Shovel Co., The, 640 W. Center
St., Marion, Ohio.

Lubricants

Dixons Crucible Co., Joseph, Jersey City, N. J.

Lubricators

American Injector Co., Congress and 7th Sts.,
Detroit, Mich.

Clow & Sons, James B., Chicago, Ill.

Lunkenheimer Co., Cincinnati, Ohio.

Powell Co., Wm., Cincinnati, Ohio.

Lumber (Creosoted)

American District Steam Co., Lockport, N. Y.

Barber Asphalt Paving Co., Maurer, N. J.

Grosche & Co., Bruno, 23 Jones Lane, N. Y.

Gulfport Creosoting Co., Gulfport, Miss.

Machine Tools

International Electric & Engineering Co., 148
Chambers St., New York.

Pels & Co., Henry, 66-68 Broad St., New York.

Scully Steel & Iron Co., Chicago, Ill.

Machinery and Appliances (Grain Elevators)

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Machinery Merchants

Chandler, Geo. M., 42-9 N. Illinois St., In-
dianapolis, Ind.

Machinery (Power Transmitting)

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Machinery (Rope Transmitting)

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Machinery, Second-Hand (See Sec- ond-Hand Supplies)

Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.

Chandler, Geo. M., 42-9 N. Illinois St., In-
dianapolis, Ind.

Chicago House Wrecking Co., West 35th and
Iron Sts., Chicago, Ill.

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Lombard Iron Works & Supply Co., Augusta,
Ga.

Shaw Co., Willis, 171 La Salle St., Chicago.

Mention the "Record" when writing.

Machinists

Monighan Machine Co., 809-823 Carroll Ave., Chicago, Ill.
Moore & Sons Corp., Sam'l L., Front and Franklin Sts., Elizabethport, N. J.
Lawrence Machine Co., Lawrence, Mass.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Valley Iron Works, Williamsport, Pa.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.
Wetherill Bros. Machine Co., Chester, Pa.
Whitehead & Kales Iron Works, Detroit, Mich.

Machinist and Founders

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Manganese Steel

Pennsylvania Steel Co., The, Philadelphia, Pa.

Manhole Covers

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.
Clow & Sons, James B., Chicago, Ill.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Mach. Co., Niagara Falls, N. Y.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Raquette Foundry & Supply Co., Massena, N. Y.
U. S. Cast Iron Pipe & Foundry Co., 71 B'way, New York.
Valley Iron Works, Williamsport, Pa.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Marble (Workers' and Dealers')

Clow & Sons, James B., Chicago, Ill.

Mauls

Scully Steel & Iron Co., Chicago, Ill.

Mechanical Draft Plants

American Blower Co., Detroit, Mich.
Green Fuel Economizer Co., Matteawan, N. Y.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.

Metallic Window Frame and Sash

Bayer, J. C., Front and Market Sts., Portland, Ore.
Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.
Berger Mfg. Co., The, Canton, Ohio.
General Fireproofing Co., The, Youngstown, O.
Irwin Mfg. Co., Thos. W., Rebecca and Craig Sts., North Side, Pittsburg, Pa.
Mesker & Bro., 421 So. 6th St., St. Louis, Mo.
Mullins Co., W. H., 342 Franklin St., Salem, O.
Van Noorden Co., E., 950 Mass. Ave., Boston.

Metals (Reinforcing)

Associated Expanded Metal Cos., 221 Fifth Ave., New York.

Mention the "Record" when writing.

Buffalo Steel Co., Towanda, N. Y.
 Calumet Steel Co., Commercial Nat'l Bank
 Bldg., Chicago, Ill.
 Clinton Wire Cloth Co., Clinton, Mass.
 Concrete-Steel Engineering Co., Park Row
 Bldg., New York.
 Douglas, Geo. B., 29 B'way, New York.
 General Fireproofing Co., The, Youngstown, O.
 Goff-Horner & Co., "Ltd.," Frick Bldg., Pitts-
 burg, Pa.
 Hough Co., William B., 1336-7 Monadnock
 Block, Chicago, Ill.
 Inland Steel Co., First National Bank Bldg.,
 Chicago, Ill.
 Lupton's Sons Co., David, Philadelphia, Pa.
 Northwestern Expanded Metal Co., Old Col-
 ony Bldg., Chicago, Ill.
 Portland Iron & Steel Co., Board of Trade
 Bldg., Boston, Mass.
 Rodgers Co., The, Monadnock Block, Chicago.
 Rogers-Shear Co., The, Warren, Pa.
 Trussed Concrete Steel Co., Detroit, Mich.

Metal Shingles and Tile

Bayer, J. C., Front and Market Sts., Portland,
 Ore.

Meter Box Covers

Lynchburg Foundry Co., Lynchburg, Va.
 McWane Pipe Works, 220 B'way, New York.

Meter Provers

Pittsburgh Meter Co., East Pittsburgh, Pa.
 Seelig & Son, R., 170 E. Madison St., Chicago.

Meters (Air)

Pittsburgh Meter Co., East Pittsburgh, Pa.

Meters (Feed-Water)

Pittsburgh Meter Co., East Pittsburgh, Pa.

Meters (Gas)

Pittsburgh Meter Co., East Pittsburgh, Pa.

Meters (Hot-Water)

Pittsburgh Meter Co., East Pittsburgh, Pa.

Meters (Portable)

Pittsburgh Meter Co., East Pittsburgh, Pa.

Meters (Sprinkling Cart)

Pittsburgh Meter Co., East Pittsburgh, Pa.

Meters (Steam)

American District Steam Co., Lockport, N. Y.

Meters (Water and Oil)

Buffalo Meter Co., 290-296 Terrace, Buffalo,
 N. Y.

Builders Iron Foundry, 9 Coddington St., Provi-
 dence, R. I.

Chicago House Wrecking Co., West 35th and
 Iron Sts., Chicago, Ill.

National Meter Co., 84 Chambers St., N. Y.

Neptune Meter Co., 90 West St., New York.

Pittsburgh Meter Co., East Pittsburgh, Pa.

Mention the "Record" when writing.

Simplex Valve & Meter Co., 112 N. Broad St., Philadelphia, Pa.

Thomson Meter Co., 79 Washington St., Brooklyn, N. Y.

Mill Motors (Alternating and Direct-Current)

General Electric Co., Schenectady, N. Y.

Mills (Sugar)

Baltimore Bridge Co., Bush St. and B. & O. R.R., Baltimore, Md.

Mining Machinery

Allis-Chalmers Co., Milwaukee, Wis.

American Test Boring & Drilling Co., 32 B'way, New York.

Atlas Dryer Co., The, Cleveland, Ohio.

Bacon, Earle Co., Havemeyer Bldg., N. Y.

Bucyrus Co., The, So. Milwaukee, Wis.

Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.

Ingersoll-Rand Co., 11 B'way, New York.

Kent Mill Co., 170 B'way, New York.

Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.

Marion Steam Shovel Co., The, 640 W. Center St., Marion, Ohio.

Mead-Morrison Mfg. Co., Cambridge, Mass.

Morris & Co., I. P., Philadelphia, Pa.

Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.

Power & Mining Machinery Co., Cudahy, Wis.

Raymond Bros. Impact Pulverizer Co., 143 Laflin St., Chicago, Ill.

Scully Steel & Iron Co., Chicago, Ill.

Smidth & Co., F. L., 41 Cortlandt St., N. Y.

Sturtevant Mill Co., Harrison Sq., Boston.

Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Wisconsin Engine Co., Corliss, Wis.

Mining Machinery (Cars)

Shaw Co., Willis, 171 La Salle St., Chicago.

Youngstown Car Mfg. Co., Youngstown, O.

Mining Shafts

Foundation Co., The, 115 B'way, New York.

Mixers (Asphalt)

Erie Machine Shops, Erie, Pa.

Mixers (Cement)

Municipal Engineer's & Contracting Co., Jackson Boulevard and Mich. Ave., Chicago.

Mixers (Cement, Asphalt and Mortar)

Ashland Steel Range & Mfg. Co., Ashland, O.

Chain Belt Co., Milwaukee, Wis.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Eureka Machine Co., Lansing, Mich.

Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.

Mention the "Record" when writing.

Hough Co., William D., 1336-7 Monadnock Block, Chicago, Ill.

Koehring Machine Co., Milwaukee, Wis.

Power & Mining Machinery Co., Cudahy, Wis.

Ransome Concrete Machinery Co., Dunellen, N. J.

Standard Sand & Machine Co., Cleveland, O.

Svenson-Shuman Machine Co., 602 Bessemer Bldg., Pittsburg, Pa.

Wilcox Co., W. H., Binghamton, N. Y.

Youngstown Car Mfg. Co., Youngstown, O.

Mixers (Concrete)

Scully Steel & Iron Co., Chicago, Ill.

Mixers (Mortar)

Buffalo Concrete Mixer Co., The, 12 Builders' Exchange, Buffalo, N. Y.

Mixing Machinery

Standard Sand & Machine Co., Cleveland, O.

Mortar Colors

Garry Iron & Steel Co., Cleveland, Ohio.

Warner Co., Charles, Wilmington, Del.

Motor Cars

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Motors (Compressed Air)

Dake Engine Co., Grand Haven, Mich.

Independent Pneumatic Tool Co., Chicago and New York.

Ingersoll-Rand Co., 11 B'way, New York.

Northern Engineering Works, Detroit, Mich.

Motors (Electric)

Allis-Chalmers Co., Milwaukee, Wis.

Burke Electric Co., Erie, Pa.

C. & C. Electric Co., The, Garwood, N. J.

Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.

D'Olier Engineering Co., 121 South 11th St., Philadelphia, Pa.

General Electric Co., Schenectady, N. Y.

International Electric & Engineering Co., 148 Chambers St., New York.

Mietz, August, 128-138 Mott St., New York.

Moore & Sons Corp., Sam'l L., Front and Franklin Sts., Elizabethport, N. J.

Northern Engineering Works, Detroit, Mich.

Ridgway Dynamo & Engine Co., Ridgway, Pa.

Sturtevant Co., B. F., Hyde Park, Mass.

Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Motors (Water and Steam)

Dake Engine Co., Grand Haven, Mich.

Municipal Hand Carts

Studebaker Bros. Mfg. Co., South Bend, Ind.

Nails (Wire)

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago.

Mention the "Record" when writing.

Netting (Wire)

American Steel & Wire Co., Commercial Nat'l
Bank Bldg., Chicago, Ill.

Nickel Steel

Pennsylvania Steel Co., The, Phila., Pa.
Prosser & Sons, Thos. ("Krupp"), 15 Gold St.,
New York.

Nuts and Nut Locks

Lombard Iron Works & Supply Co., Augusta,
Ga.
Pittsburgh Mfg. Co., Pittsburgh, Pa.

Oakum

American Mfg. Co., 65 Wall St., New York.
Leschen & Sons Rope Co., A., St. Louis, Mo.

Office Supplies

Architects & Engineers Supply Co., 1010 Grand
Ave., Kansas City, Mo.

Oil Burners (Gem)

Petroleum Iron Works Co., The, Sharon, Pa.

Oil Filters

Burt Mfg. Co., Akron, Ohio.
Clow & Sons, James B., Chicago, Ill.

Oil Refining Plants

Petroleum Iron Works Co., The, Sharon, Pa.

Oilers

Powell Co., William, Cincinnati, Ohio.

Oiling Systems

Burt Mfg. Co., Akron, Ohio.

Optical Goods

Architects & Engineers Supply Co., 1010 Grand
Ave., Kansas City, Mo.

Packing

Broderick & Bascom Rope Co., St. Louis, Mo.
Clow & Sons, James B., Chicago, Ill.
Johns-Manville Co., H. W., 100 Wm. St., N. Y.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Watson-Stillman Co., The, 26 Cortlandt St.,
New York.

Packing (Leather)

Detroit Leather Specialty Co., Michigan and
Beecher Aves., Detroit, Mich.

Packing (Metallic)

Power Specialty Co., 111 B'way, New York.

Packing (Water-Pipe)

American Mfg. Co., 65 Wall St., New York.

Paints and Metal Coatings

American Asphaltum & Rubber Co., Woman's
Temple, Chicago, Ill.
Carbolineum Wood Preserving Co., 60 Wall
St., New York.
Dixons Crucible Co., Joseph, Jersey City, N. J.
Elaterite Paint & Mfg. Co., Des Moines, Ia.
Grosche & Co., Bruno, 23 Jones Lane, N. Y.

Mention the "Record" when writing.

Hammond-Boynton Paint & Chemical Co.,
Norwich, Conn.
Lino Paint Co., The, Collinwood, Ohio.
Lombard Iron Works & Supply Co., Augusta,
Ga.
McKinney Co., C. S., 60 Wall St., New York.
Rinald Bros., 1142-1146 No. Hancock St., Phil-
adelphia, Pa.
Standard Asphalt & Rubber Co., 944 First Nat'l
Bank Bldg., Chicago, Ill.
Wadsworth, Howland & Co., Inc., 84 Washing-
ton St., Boston, Mass.

Paper (Drafting)

Mittineague Paper Co., Mittineague, Mass.

Paper (Drawing)

Mittineague Paper Co., Mittineague, Mass.

Paper (Writing)

Mittineague Paper Co., Mittineague, Mass.

Paving Materials

American Asphaltum & Rubber Co., Woman's
Temple, Chicago, Ill.
American Creosoting Co., 29 B'way, N. Y.
McAvoy Vitified Brick Co., 345 Arch St.,
Philadelphia, Pa.
Metropolitan Paving Brick Co., Canton, O.
Patton Clay Mfg. Co., Patton, Pa.
Standard Asphalt & Rubber Co., 944 First
Nat'l Bank Bldg., Chicago, Ill.
Steel Protected Concrete Co., Phila., Pa.
Trussed Concrete Steel Co., Detroit, Mich.
Warner Co., Charles, Wilmington, Del.

Penstocks

Graver Tank Works, East Chicago, Ind.

Perforated Metals

Allis-Chalmers Co., Milwaukee, Wis.
Power & Mining Machinery Co., Cudahy, Wis.
Webster Mfg. Co., 1075 W. 15th St., Chicago,
Ill.; 88-90 Reade St., New York.

Pile-Driving Machinery

American Hoist & Derrick Co., St. Paul, Minn.
Bucyrus Co., The, South Milwaukee, Wis.
Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.
Contractors Plant Mfg. Co., Buffalo, N. Y.
Chandler, Geo. M., 42-9 North Illinois St., In-
dianapolis, Ind.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls.
N. Y.
Edson Manufacturing Co., 255-257 Atlantic
Ave., Boston, Mass.
Ingersoll-Rand Co., 11 B'way, New York.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Lombard Iron W'ks & Supply Co., Augusta, Ga.

Mention the "Record" when writing.

McKiernan Drill Co., 115 B'way, N. Y.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Monighan Machine Co., 809-823 Carroll Ave.,
Chicago, Ill.
Reliance Machine & Tool Works, St. Louis, Mo.
Scully Foundation & Transportation Co., John
T., 85 First St., Cambridge, Mass.
Shaw Co., Willis, 171 La Salle St., Chicago, Ill.
Union Iron Works, The, Hoboken, N. J.

Pile Protection

Lock Joint Pipe Co., 346 B'way, New York.

Pile Shoes

Dobbie Foundry & Machine Co., Niagara Falls,
N. Y.
Janney, Steinmetz & Co., Phila., Pa.
Patterson Co., W. W., Pittsburg, Pa.
Perrin, Seamans & Co., 57 Oliver St., Boston.

Piles (Concrete)

Chenoweth, A. C., 16 Court St., Brooklyn, N.Y.
Foundation Co., The, 115 B'way, New York.
Goff-Horner & Co., "Ltd.," Frick Bldg., Pitts-
burg, Pa.
Hennebique Construction Co., 1170 B'way, N.Y.
Maxwell Concrete Steel Co., 516 Penobscot
Bldg., Detroit, Mich.
Raymond Concrete Pile Co., 135 Adams St.,
Chicago, Ill.
Simplex Concrete Piling Co., 3400 Disston St.,
Tacoma, Philadelphia, Pa.

Piles (Creosoted)

Barber Asphalt Paving Co., Maurer, N. J.
Gulfport Creosoting Co., Gulfport, Miss.
Valley Iron Works, Williamsport, Pa.

Piles (Reinforced Sheet)

Chenoweth, A. C., 16 Court St., Brooklyn, N.Y.

Piles (Spruce)

Scully Foundation & Transportation Co., John
T., 84 First St., Cambridge, Mass.

Piles (Steel Sheeting)

Foundation Co., The, 115 B'way, New York.

Piles (Wooden)

Foundation Co., The, 115 B'way, New York.

Piling (Concrete)

Foundation C., The, 115 B'way, New York.

Piling (Interlocking)

Jackson, George W., "Inc.," 169-179 W. Jackson
Boulevard, Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
National Interlocking Steel Sheeting Co., Chi-
cago, Ill.
Ransome Concrete Machinery Co., Dunellen,
N. J.
Wemlinger Steel Piling Co., 11 B'way, N. Y.
Wittekind, Henry, 4730 North Clark St., Chi-
cago, Ill.

Mention the "Record" when writing.

Piling (Sheet)

Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
National Interlocking Steel Sheeting Co., Chicago, Ill.
Scully Foundation & Transportation Co., John T., 84 First St., Cambridge, Mass.
Wemlinger Steel Piling Co., 11 B'way, N. Y.
Wittekind, Henry, 4730 North Clark St., Chicago, Ill.

Piling (Sheet—Reinforced Concrete)

Chenoweth, A. C., 16 Court St., Brooklyn, N. Y.

Piling (Sheet Steel)

Foundation Co., The, 115 B'way, New York.
Jackson, George W., "Inc.," 169-179 West Jackson Boulevard, Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
National Interlocking Steel Sheeting Co., Chicago, Ill.
Ransome Concrete Machinery Co., Dunellen, N. J.
Wemlinger Steel Piling Co., 11 Broadway, N. Y.
Wittekind, Henry, 4730 North Clark St., Chicago, Ill.

Piling (Wooden)

Foundation Co., The, 115 B'way, New York.

Pipe and Boiler Coverings

Clow & Sons, James B., Chicago, Ill.
Johns-Manville Co., H. W., 100 William St., New York.
Lombard Iron W'ks & Supply Co., Augusta, Ga.
Michigan Pipe Co., The, Bay City, Mich.

Pipe-Bending Machines

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Pipe Bends

Kellogg Co., M. W., 143 Liberty St., N. Y.

Pipe (Brine Circulation)

American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.

Pipe (Cast-Iron)

American Cast-Iron Pipe Co., Birmingham, Ala.
Clow & Sons, James B., Chicago, Ill.
Dimmick Pipe Co., Birmingham, Ala.
Donaldson Iron Co., Emaus, Lehigh Co., Pa.
Indiana Road Machine Co., Fort Wayne, Ind.
Kellogg Co., M. W., 143 Liberty St., N. Y.
Lynchburg Foundry Co., Lynchburg, Va.
McWane Pipe Works, 220 B'way, New York.
U. S. Cast-Iron Pipe & Foundry Co., 71 B'way, New York.
U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Mention the "Record" when writing.

Pipe (Cast-Iron for Water or Gas)

American Pipe Mfg. Co., The, 112 North Broad St., Philadelphia, Pa.
Donaldson Iron Co., Emaus, Lehigh County, Pa.
Fox & Co., John, 253 B'way, New York.
Gillespie Co., T. A., Westinghouse Bldg., Pittsburgh, Pa.
Massillon Iron & Steel Co., Massillon, Ohio.

Pipe Cutters

American District Steam Co., Lockport, N. Y.
Clow & Sons, James B., Chicago, Ill.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Pipe Cutting and Threading Machines

Scully Steel & Iron Co., Chicago, Ill.

Pipe Dip

American Asphaltum & Rubber Co., Woman's Temple, Chicago, Ill.
Hydrex Felt & Engineering Co., 120 Liberty St., New York.
Standard Asphalt & Rubber Co., 944 First Nat'l Bank Bldg., Chicago, Ill.

Pipe Fittings

American Cast-Iron Pipe Co., Birmingham, Ala.
American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.
Builders Iron Foundry, 9 Coddling St., Providence, R. I.
Clow & Sons, James B., Chicago, Ill.
Donaldson Iron Co., Emaus, Lehigh Co., Pa.
Kellogg Co., M. W., 143 Liberty St., N. Y.
Massillon Iron & Steel Co., Massillon, Ohio.
National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.
U. S. Cast Iron Pipe & Foundry Co., 71 B'way, New York.
U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.
Watson-Stillman Co., The, 26 Cortlandt St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pipe (Galvanized Iron Air)

New York Blower Co., Chicago, Ill.

Pipe Intake

American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.
Michigan Pipe Co., Bay City, Mich.

Pipe-Joint Compounds

Dixons Crucible Co., Joseph, Jersey City, N. J.

Mention the "Record" when writing.

Pipe Joints

American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.

Leadite Co. of America, 1215 Filbert St., Phila.

United Lead Co., 100 William St., New York.

Pipe (Lead)

Clow & Sons, James B., Chicago, Ill.

Pipe-Line Supplies

American District Steam Co., Lockport, N. Y.

American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.

Union Iron Works, The, Hoboken, N. J.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ills.

Pipe (Lock-Bar)

East Jersey Pipe Co., 90 West St., New York.

Pipe (Penstock-Steel)

Struthers-Wells Co., Warren, Pa.

Pipe (Reinforced Concrete)

Maxwell Concrete Steel Co., 516 Penobscot Bldg., Detroit, Mich.

Rodgers Company, The, Monadnock Block, Chicago, Ill.

Pipe (Riveted Steel)

American Spiral Pipe Works, 14th St. & 48th Ave., Chicago, Ill.

Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

Clinton Bridge & Iron Works, Clinton, Ia.

Decatur Bridge Co., Decatur, Ill.

Douglas, Geo. B., 29 B'way, New York.

East Jersey Pipe Co., 90 West St., New York.

Gillespie Co., T. A., Westinghouse Bldg., Pittsburgh, Pa.

Graver Tank Works, Wm., East Chicago, Ind.

McNeil & Bro. Co., James, Pittsburgh, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Petroleum Iron Works Co., The, Sharon, Pa.

Riter-Conley Mfg. Co., Pittsburgh, Pa.

Scaife & Sons Co., Wm. B., Pittsburgh, Pa.

Sharon Boiler Works, Sharon, Pa.

Struthers-Wells Co., Warren, Pa.

Tippett & Wood, Phillipsburg, N. J.

Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Pipe (Steel)

Scully Steel & Iron Co., Chicago, Ill.

Pipe (Vitrified Clay and Sewer)

National Fire Proofing Co., 115 Adams St., Chicago, Ill.

N. Y. State Sewer Pipe Co., Rochester, N. Y.

Patton Clay Mfg., Co., Patton, Pa.

Mention the "Record" when writing.

Robinson Clay Product Co. of N. Y., Flatiron
Bldg., New York.
Warner Co., Charles, Wilmington, Del.

Pipe (Welded)

Riter-Conley Mfg. Co., Pittsburg, Pa.

Pipe (Wooden)

American District Steam Co., Lockport, N. Y.
Excelsior Wooden Pipe Co., St. Paul Bldg.,
New York.

Janney, Steinmetz & Co., Philadelphia, Pa.

Michigan Pipe Co., Bay City, Mich.

National Wood Pipe Co., 404 Equitable Bank
Bldg., Los Angeles, Cal.

U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Wyckoff Wood Pipe Co., Elmira, N. Y.

Pipe (Wrought-Iron)

American District Steam Co., Lockport, N. Y.

Clow & Sons, James B., Chicago, Ill.

Douglas, Geo. B., 29 B'way, New York.

Fox & Co., John, 253 B'way, New York.

Kellogg Co., M. W., 143 Liberty St., N. Y.

U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Watson-Stillman Co., The, 26 Cortlandt St.,
New York.

Piping

Pope, Wm. A., 80 Lake St., Chicago, Ill.

Plaster (Calcined)

Warner Co., Charles, Wilmington, Del.

Plaster (Hard Wall)

Warner Co., Charles, Wilmington, Del.

Plates (Steel)

Douglas, Geo. B., 29 B'way, New York.

Scully Steel & Iron Co., Chicago, Ill.

Pliers (Wire-Cutting)

Wiebusch & Hilger, "Ltd.," 9 Murray St.,
New York.

Plows (Contractors')

Broderick & Bascom Rope Co., St. Louis, Mo.

Climax Road Machine Co., Marathon, N. Y.

Contractors Plant Mfg. Co., Buffalo, N. Y.

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Dobbie Foundry & Machine Co., Niagara Falls,
N. Y.

Indiana Road Machine Co., Fort Wayne, Ind.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Shaw Co., Willis, 171 La Salle St., Chicago.

Plumbers' Materials, Sanitary Specialties, Etc.

American District Steam Co., Lockport, N. Y.

Clow & Sons, James B., Chicago, Ill.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Mention the "Record" when writing.

Pneumatic Hose Couplings

Independent Pneumatic Tool Co., Chicago and New York.

Ingersoll-Rand Co., 11 B'way, New York.

McKiernan Drill Co., 115 B'way, New York.

Pneumatic Tools

Allen, John F., 370-372 Gerard Ave., N. Y.
American Air Compressor Works, 26 Cortlandt St., New York.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Independent Pneumatic Tool Co., Chicago and New York.

Ingersoll-Rand Co., 11 B'way, New York.

Pneumatic Work

Foundation Co., The, 115 B'way, New York.

Poles and Posts (Iron, Steel, Trolley Posts, Etc.)

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.

East Jersey Pipe Co., 90 West St., New York.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Poles (Flag)

Seelig & Son, R., 170 East Madison St., Chicago, Ill.

Poles (Ranging)

Seelig & Son, R., 170 East Madison St., Chicago, Ill.

Portland Cement

Alma Cement Co., Wellston, Ohio.

Alpha Portland Cement Co., Easton, Pa.

Alsens Portland Cement Co., 45 B'way, N. Y.

American Cement Co., 603-10 Pennsylvania Bldg., Philadelphia, Pa.

Atlas Portland Cement Co., The, 30 Broad St., New York.

Cayuga Lake Cement Co., Ithaca, N. Y.

Chicago House Wrecking Co., West 35th and Iron Sts., Chicago.

Chicago Portland Cement Co., Chicago Stock Exchange, Chicago, Ill.

Clow & Sons, James B., Chicago, Ill.

Connelly Construction Co., El Reno, Okla.

Consolidated Rosendale Cement Co., 26 Cortlandt St., New York.

Coplay Cement & Mfg. Co., Pennsylvania Bldg., Philadelphia, Pa.

Dexter Portland Cement, York Ave., Fourth and Callowhill Sts., Philadelphia, Pa.

Douglas, Geo. B., 29 B'way, New York.

Edison Portland Cement Co., The, 1133 B'way, New York.

Fredenburg & Lounsbury, 289 Fourth Ave., New York.

Mention the "Record" when writing.

French & Co., Samuel H., York Ave., Fourth
 and Callowhill Sts., Philadelphia, Pa.
 Glens Falls Portland Cement Co., 156 Fifth
 Ave., New York.
 Hartranft Cement Co., Wm. G., Real Estate
 Trust Bldg., Philadelphia, Pa.
 Ironton Portland Cement Co., Ironton, Ohio.
 Kosmos Portland Cement Co., "Inc.," 614-616
 Paul Jones Bldg., Louisville, Ky.
 Lawrence Cement Co., 1 B'way, New York.
 Lehigh Portland Cement Co., Allentown, Pa.
 Marquette Cement Mfg. Co., Chicago, Ill.
 National Fire Proofing Co., Chicago, Ill.
 Omega Portland Cement Co., Jonesville, Mich.
 Peninsular Portland Cement Co., Jackson,
 Mich.
 Pennsylvania Cement Co., 26 Cortlandt St.,
 New York.
 Portland Iron & Steel Co., Board of Trade
 Bldg., Boston, Mass.
 Potomac Dredging Co., 24-25 Home Life Bldg.,
 Washington, D. C.
 Robinson Clay Product Co. of New York,
 Flatiron Bldg., New York.
 St. Louis Portland Cement Co., St. Louis, Mo.
 Standard Concrete Steel Co., 31st and 32d Sts.,
 East River, New York.
 Superior Portland Cement Co., Charleston,
 W. Va.
 Trussed Concrete Steel Co., Detroit, Mich.
 Universal Portland Cement Co., Chicago, Ill.
 Upton, F. R., 9 Clinton St., Newark, N. J.
 Vulcanite Portland Cement Co., Land Title
 Bldg., Philadelphia, Pa.
 Warner Co., Charles, Wilmington, Del.
 Warren-Ehret Co., 1204 Land Title Bldg., Phila.
 Winslow Co., E. J., 138 Jackson Boulevard,
 Chicago, Ill.
 Wolverine Portland Cement Co., Coldwater,
 Mich.

Pots (Melting)

Allis-Chalmers Co., Milwaukee, Wis.
 Clow & Sons, James B., Chicago, Ill.
 Graver Tank Works, Wm., E. Chicago, Ind.
 Union Iron Works, The, Hoboken, N. J.

Powder

Aetna Powder Co., The, Chicago, Ill.
 du Pont de Nemours Powder Co., E. I., Wil-
 mington, Del.
 Ingersoll-Rand Co., 11 B'way, New York.
 Keystone Powder Mfg. Co., Emporium, Pa.
 National Powder Co., 353 Fifth Ave., N. Y.
 Sinnamahoning Powder Mfg. Co., Emporium,
 Pa.

Power Houses

Riverside Bridge Co., Martin's Ferry, Ohio.

Mention the "Record" when writing.

Power Plants (Gas-Producer)

Wood & Co., R. D., 400 Chestnut St., Phila.

Power Plants, Piping and Equipment

Pope, Wm. A., 80 Lake St., Chicago, Ill.

Power Transmission Machinery

Allis-Chalmers Co., Milwaukee, Wis.

Broderick & Bascom Rope Co., St. Louis, Mo.

Chain Belt Co., Milwaukee, Wis.

Cresson Co., Geo. V., Philadelphia, Pa.

General Electric Co., Schenectady, N. Y.

Power & Mining Machinery Co., Cudahy, Wis.

Smith Co., S. Morgan, York, Pa.

Union Iron Works, The, Hoboken, N. J.

Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.

Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Power Transmission Machinery (Electric)

General Electric Co., Schenectady, N. Y.

Pressed Steel Wheels

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Presses (Hydraulic)

Scully Steel & Iron Co., Chicago, Ill.

Presses (Screw)

Scully Steel & Iron Co., Chicago, Ill.

Pullers (Car)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Pulleys

Allis-Chalmers Co., Milwaukee, Wis.

Chain Belt Co., Milwaukee, Wis.

Cresson Co., Geo. V., Philadelphia, Pa.

Lombard Iron Works & Supply Co., Augusta, Ga.

Smith Co., S. Morgan, York, Pa.

Traylor Engineering Co., 2 Rector St., N. Y.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Valley Iron Works, Williamsport, Pa.

Watson-Stillman Co., The, 26 Cortlandt St., New York.

Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.

Pulleys (Cast-Iron)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Pulleys (Flange)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Pulleys (Friction Clutch)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Mention the "Record" when writing.

Pulleys (Iron-Split)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Pulleys (Loose)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Pulverizers

Bradley Pulverizer Co., 92 State St., Boston.

Coldwell-Wilcox Co., Newburgh, N. Y.

Kent Mill Co., 170 B'way, New York.

Lehigh Car, Wheel & Axle Works, Catasauqua, Pa.

Power & Mining Machinery Co., Cudahy, Wis.

Prosser & Sons, Thos. ("Krupp"), 15 Gold St., New York.

Raymond Bros. Impact Pulverizer Co., 143 Laflin St., Chicago, Ill.

Scholl & Co., Julian, 126 Liberty St., N. Y.

Smidth & Co., F. L., 39-41 Cortlandt St., N. Y.

Sturtevant Mill Co., Harrison Sq., Boston.

Traylor Engineering Co., 2 Rector St., N. Y.

Watson-Stillman Co., The, 26 Cortlandt St., New York.

Pumping (Compressed-Air)

Presler Prospecting & Engineering Co., Cincinnati, Ohio.

Pumping Machinery (Centrifugal)

Morris & Co., I. P., Philadelphia, Pa.

Pumps

D'Olier Engineering Co., 119-121 South 11th St., Philadelphia, Pa.

Pumps and Pumping Machinery

Abenague Machine Works, Westminster Station, Vt.

Allis-Chalmers Co., Milwaukee, Wis.

American Well Works, Aurora, Ill.

Artesian Well & Supply Co., Dyer and Friendship Sts., Providence, R. I.

Bacon, Earle C., Havemeyer Bldg., New York.

Bethlehem Foundry & Machine Works, So. Bethlehem, Pa.

Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.

Dayton Hydraulic Machinery Co., Dayton, O.

Dean Bros. Steam Pump Works, Indianapolis, Ind.

Deming Co., The, Salem, Ohio.

D'Olier Engineering Co., 121 S. 11th St., Phila.

Douglas, W. & B., Middletown, Conn.

Emerson Steam Pump Co., The, Alexandria, Va.

Erie Pump & Engine Co., Erie, Pa.

Ingersoll-Rand Co., 11 B'way, New York.

Jeanesville Iron Works Co., Hazleton, Pa.

Keystone Driller Co., Beaver Falls, Pa.

Knowles Steam Pump Co., 115 B'way, N. Y.

Lake Erie Engineering Works, Buffalo, N. Y.

Mention the "Record" when writing.

Lawrence Machine Co., Lawrence, Mass.
Lombard Iron Works & Supply Co., Augusta,
Ga.

Mietz, August, 128-138 Mott St., New York.

Morris & Co., I. P., Philadelphia, Pa.

Morris Machine Works, Baldwinsville, N. Y.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Prescott Steam Pump Co., Fred M., Milwaukee,
Wis.

Pulsometer Steam Pump Co., 17 Battery Place,
New York.

Rider-Ericsson Engine Co., 35 Warren St.,
New York.

Southwark Foundry & Machine Co., Phila.

Tod Co., William, Youngstown, Ohio.

Traylor Engineering Co., 2 Rector St., N. Y.

Union Steam Pump Co., Battle Creek, Mich.

U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Wood & Co., R. D., 400 Chestnut St., Phila.

Pumps (Air)

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Pumps (Belt-Driven)

Allis-Chalmers Co., Milwaukee, Wis.

American Well Works, Aurora, Ill.

Artesian Well & Supply Co., Dyer and Friend-
ship Sts., Providence, R. I.

Dayton Hydraulic Machinery Co., Dayton, O.

Dean Bros. Steam Pump Works, Indianapo-
lis, Ind.

Deming Co., The, Salem, Ohio.

D'Olier Engineering Co., 121 South 11th St.,
Philadelphia, Pa.

Douglas, W. & B., Middletown, Conn.

Erie Pump & Engine Co., Erie, Pa.

Hough Co., William B., 1336-7 Monadnock
Block, Chicago, Ill.

Jeanesville Iron Works Co., Hazleton, Pa.

Lawrence Machine Co., Lawrence, Mass.

Lombard Iron Works & Supply Co., Augusta,
Ga.

Morris Machine Works, Baldwinsville, N. Y.

Traylor Engineering Co., 2 Rector St., N. Y.

Union Steam Pump Co., Battle Creek, Mich.

U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Watson-Stillman Co., The, 26 Cortlandt St.,
New York.

Wood & Co., R. D., 400 Chestnut St., Phila.

Pumps (Boiler-Feed)

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Scully Steel & Iron Co., Chicago, Ill.

Pumps (Centrifugal)

Abenague Machine Works, Westminster Sta-
tion, Vt.

Mention the "Record" when writing.

Alberger Pump Co., 95 Liberty St., N. Y.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Well Works, Aurora, Ill.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Clow & Sons, James B., Chicago, Ill.
 Dayton Hydraulic Machinery Co., Dayton, O.
 De Laval Steam Turbine Co., Trenton, N. J.
 Deming Co., The, Salem, Ohio.
 D'Olier Engineering Co., 119-121 So. 11th St.,
 Philadelphia, Pa.
 Douglas, W. & B., Middletown, Conn.
 Erie Pump & Engine Co., Erie, Pa.
 Hough Co., William B., 1336-7 Monadnock
 Block, Chicago, Ill.
 Jeanesville Iron Works Co., Hazleton, Pa.
 Lawrence Machine Co., Lawrence, Mass.
 Lombard Iron Works & Supply Co., Augusta,
 Ga.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 Mietz, August, 128-138 Mott St., New York.
 Morris Machine Works, Baldwinsville, N. Y.
 Perrin, Seamans & Co., 57 Oliver St., Boston.
 Prescott Steam Pump Co., Fred M., Milwau-
 kee, Wis.
 Southwark Foundry & Machine Co., Phila.
 Tod Co., William, Youngstown, Ohio.
 Traylor Engineering Co., 2 Rector St., N. Y.
 U. S. Wind Engine & Pump Co., 280 Water
 St., Batavia, Ill.
 Watson-Stillman Co., The, 26 Cortlandt St.,
 New York.
 Wetherill Bros. Machine Co., Chester, Pa.
 Wood & Co., R. D., 400 Chestnut St., Phila.

Pumps (Contractors', for Sewers and Foundations)

Abenague Machine Works, Westminster Sta-
 tion, Vt.
 Alberger Pump Co., 95 Liberty St., N. Y.
 American Well Works, Aurora, Ill.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Carlin Machinery & Supply Co., "Inc.," 223
 Sandusky St., North Side, Pittsburg, Pa.
 Dayton Hydraulic Machinery Co., Dayton, O.
 Deming Co., The, Salem, Ohio.
 D'Olier Engineering Co., 121 South 11th St.,
 Philadelphia, Pa.
 Douglas, W. & B., Middletown, Conn.
 Edson Manufacturing Co., 255-257 Atlantic
 Ave., Boston, Mass.
 Emerson Steam Pump Co., The, Alexandria,
 Va.
 Erie Pump & Engine Co., Erie, Pa.
 Lawrence Machine Co., Lawrence, Mass.
 Lombard Iron Works & Supply Co., Augusta,
 Ga.
 Morris Machine Works, Baldwinsville, N. Y.
 National Interlocking Steel Sheeting Co., Chi-
 cago, Ill.

Mention the "Record" when writing.

Perrin, Seamans & Co., 57 Oliver St., Boston.
Pulsometer Steam Pump Co., 17 Battery Place,
New York.

Shaw Co., Willis, 171 La Salle St., Chicago.

Union Steam Pump Co., Battle Creek, Mich.

Watson-Stillman Co., The, 26 Cortlandt St.,
New York.

Pumps (Deep-Well)

Abenague Machine Works, Westminster Station, Vt.

Allis-Chalmers Co., Milwaukee, Wis.

American Well Works, Aurora, Ill.

Artesian Well & Supply Co., Dyer & Friendship Sts., Providence, R. I.

Buffalo Steam Pump Co., Buffalo, N. Y.

Clow & Sons, James B., Chicago, Ill.

Dean Bros. Steam Pump Works, Indianapolis, Ind.

Deming Co., The, Salem, Ohio.

Douglas, W. & B., Middletown, Conn.

Flint & Walling Mfg. Co., Kendallville, Ind.

Ingersoll-Rand Co., 11 B'way, New York.

Keystone Driller Co., Beaver Falls, Pa.

Lombard Iron Works & Supply Co., Augusta, Ga.

Mietz, August, 128-138 Mott St., New York.

Union Steam Pump Co., Battle Creek, Mich.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Watson-Stillman Co., The, 26 Cortlandt St.,
New York.

Pumps (Diaphragm)

Buffalo Steam Pump Co., Buffalo, N. Y.

Clow & Sons, James B., Chicago, Ill.

Deming Co., The, Salem, Ohio.

Douglas, W. & B., Middletown, Conn.

Edson Mfg. Co., 255-257 Atlantic Ave., Boston.

Lombard Iron Works & Supply Co., Augusta, Ga.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Pumps (Dredging)

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.

Pumps (Electric)

Allis-Chalmers Co., Milwaukee, Wis.

American Well Works, Aurora, Ill.

Buffalo Steam Pump Co., Buffalo, N. Y.

Burke Electric Co., Erie, Pa.

C. & C. Electric Co., The, Garwood, N. J.

Dayton Hydraulic Machinery Co., Dayton, O.

Dean Bros. Steam Pump Works, Indianapolis, Ind.

De Laval Steam Turbine Co., Trenton, N. J.

Deming Co., The, Salem, Ohio.

D'Olier Engineering Co., 119-121 S. 11th St.,
Philadelphia, Pa.

Douglas, W. & B., Middletown, Conn.

Mention the "Record" when writing.

Erie Pump & Engine Co., Erie, Pa.
 General Electric Co., Schenectady, N. Y.
 International Electric & Engineering Co., 148
 Chambers St., New York.
 Jeanesville Iron Works Co., Hazleton, Pa.
 Mietz, August, 128-138 Mott St., New York.
 Morris Machine Works, Baldwinsville, N. Y.
 Perrin, Scamans & Co., 57 Oliver St., Boston.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Traylor Engineering Co., 2 Rector St., N. Y.
 Union Steam Pump Co., Battle Creek, Mich.
 Wood & Co., R. D., 400 Chestnut St., Phila.

Pumps (Fire, Force and Power)

Allis-Chalmers Co., Milwaukee, Wis.
 American Well Works, Aurora, Ill.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Dayton Hydraulic Machinery Co., Dayton, O.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., The, Salem, Ohio.
 D'Olier Engineering Co., 121 S. 11th St., Phila.
 Douglas, W. & B., Middletown, Conn.
 Edson Mfg. Co., 255-257 Atlantic Ave., Boston.
 Erie Pump & Engine Co., Erie, Pa.
 Lawrence Machine Co., Lawrence, Mass.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Union Steam Pump Co., Battle Creek, Mich.
 U. S. Wind Engine & Pump Co., 280 Water
 St., Batavia, Ill.
 Wood & Co., R. D., 400 Chestnut St., Phila.

Pumps (Gasoline-Driven)

Erie Pump & Engine Co., Erie, Pa.

Pumps (Mine)

Allis-Chalmers Co., Milwaukee, Wis.
 American Well Works, Aurora, Ill.
 Bacon, Earle C., Havemeyer Bldg., N. Y.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Carlin Machinery & Supply Co., "Inc.," 223
 Sandusky St., North Side, Pittsburg, Pa.
 Dayton Hydraulic Machinery Co., Dayton, O.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., The, Salem, Ohio.
 D'Olier Engineering Co., 121 S. 11th St., Phila.
 Douglass, W. & B., Middletown, Conn.
 Edson Mfg. Co., 255-257 Atlantic Ave., Boston.
 Emerson Steam Pump Co., The, Alexandria, Va.
 Erie Pump & Engine Co., Erie, Pa.
 Ingersoll-Rand Co., 11 B'way, New York.
 Jeanesville Iron Works Co., Hazleton, Pa.
 Lawrence Machine Co., Lawrence, Mass.
 Morris Machine Works, Baldwinsville, N. Y.
 National Interlocking Steel Sheeting Co., Chicago, Ill.

Mention the "Record" when writing.

Prescott Steam Pump Co., Fred M., Milwaukee, Wis.

Pulsometer Steam Pump Co., 17 Battery Place, New York.

Union Steam Pump Co., Battle Creek, Mich.

Wood & Co., R. D., 400 Chestnut St., Phila.

Pumps (Power)

Allis-Chalmers Co., Milwaukee, Wis.

American Well Works, Aurora, Ill.

Buffalo Steam Pump Co., Buffalo, N. Y.

Carlin Machinery & Supply Co., "Inc.," 223

Sandusky St., North Side, Pittsburg, Pa.

Dean Bros. Steam Pump Works, Indianapolis, Ind.

Deming Co., The, Salem, Ohio.

D'Olier Engineering Co., 121 S. 11th St., Phila.

Douglas, W. & B., Middletown, Conn.

Erie Pump & Engine Co., Erie, Pa.

Mietz, August, 128-138 Mott St., New York.

Union Steam Pump Co., Battle Creek, Mich.

Wood & Co., R. D., 400 Chestnut St., Phila.

Pumps (Rotary)

Allis-Chalmers Co., Milwaukee, Wis.

American Well Works, Aurora, Ill.

Buffalo Steam Pump Co., Buffalo, N. Y.

Deming Co., The, Salem, Ohio.

D'Olier Engineering Co., 121 S. 11th St., Phila.

Douglas, W. & B., Middletown, Conn.

Prescott Steam Pump Co., Fred M., Milwaukee, Wis.

Southwark Foundry & Machine Co., Phila.

Union Steam Pump Co., Battle Creek, Mich.

Pumps (Sand)

Allis-Chalmers Co., Milwaukee, Wis.

Bucyrus Co., The, So. Milwaukee, Wis.

Buffalo Steam Pump Co., Buffalo, N. Y.

Dayton Hydraulic Machinery Co., Dayton, O.

Erie Pump & Engine Co., Erie, Pa.

Ingersoll-Rand Co., 11 B'way, New York.

Lawrence Machine Co., Lawrence, Mass.

McCoy Co., Henry J., 65-67 Dey St., N. Y.

Mietz, August, 128-138 Mott St., New York.

Morris Machine Works, Baldwinsville, N. Y.

National Interlocking Steel Sheeting Co., Chicago, Ill.

Shaw Co., Willis, 171 La Salle St., Chicago.

Wetherill Bros. Machine Co., Chester, Pa.

Wood & Co., R. D., 400 Chestnut St., Phila.

Pumps (Sewage, Quarry, Mining, Irrigating and Dredging)

Deming Co., The, Salem, Ohio.

Pumps (Steam)

D'Olier Engineering Co., 121 S. 11th St., Phila.

Lawrence Machine Co., Lawrence, Mass.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Mention the "Record" when writing.

**Pumps (Steam, Sewage, Quarry,
Mining, Irrigating and Dredging)**

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Bucyrus Co., The, So. Milwaukee, Wis.
Buffalo Steam Pump Co., Buffalo, N. Y.
Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.
Dayton Hydraulic Machinery Co., Dayton, O.
Dean Bros. Steam Pump Works, Indianapo-
lis, Ind.
D'Olier Engineering Co., 121 S. 11th St., Phila.
Edson Mfg. Co., 255-257 Atlantic Ave., Boston.
Emerson Steam Pump Co., The, Alexandria,
Va.
Erie Pump & Engine Co., Erie, Pa.
Janesville Iron Works Co., Hazleton, Pa.
Morris Machine Works, Baldwinsville, N. Y.
National Interlocking Steel Sheeting Co., Chi-
cago, Ill.
Prescott Steam Pump Co., Fred M., Milwau-
kee, Wis.
Pulsometer Steam Pump Co., Whitehall Bldg.,
New York.
Reliance Mach. & Tool Works, St. Louis, Mo.
Traylor Engineering Co., 2 Rector St., N. Y.
Union Steam Pump Co., Battle Creek, Mich.
U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.
Wetherill Bros. Machine Co., Chester, Pa.
Wood & Co., R. D., 400 Chestnut St., Phila.

Pumps (Trench)

American Well Works, Aurora, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.
Clow & Sons, James B., Chicago, Ill.
Deming Co., The, Salem, Ohio.
Douglas, W. & B., Middletown, Conn.
Edson Mfg. Co., 255-257 Atlantic Ave., Boston.
Emerson Steam Pump Co., The, Alexandria,
Va.
Erie Pump & Engine Co., Erie, Pa.
Lawrence Machine Co., Lawrence, Mass.
Morris Machine Works, Baldwinsville, N. Y.
National Interlocking Steel Sheeting Co., Chi-
cago, Ill.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Pulsometer Steam Pump Co., 17 Battery Place,
New York.
Union Steam Pump Co., Battle Creek, Mich.

Pumps (Triplex)

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

Pumps (Vacuum)

Buffalo Steam Pump Co., Buffalo, N. Y.
Dean Bros. Steam Pump Works, Indianapo-
lis, Ind.

Mention the "Record" when writing.

Perrin, Seamans & Co., 57 Oliver St., Boston.
Prescott Steam Pump Co., Fred M., Milwaukee, Wis.

Southwark Foundry & Machine Co., Phila.
Union Steam Pump Co., Battle Creek, Mich.
Williamson Bros. Co., Aramingo Ave. and
Cumberland St., Philadelphia, Pa.

Pumps (Waterworks)

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Dayton Hydraulic Machinery Co., Dayton, O.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, Ohio.
D'Olier Engineering Co., 121 S. 11th St., Phila.
Douglas, W. & B., Middletown, Conn.
Edson Mfg. Co., 255-257 Atlantic Ave., Boston.
Erie Pump & Engine Co., Erie, Pa.
Jeanesville Iron Works Co., Hazleton, Pa.
Lombard Iron Works & Supply Co., Augusta,
Ga.
Mietz, August, 128-138 Mott St., New York.
Minneapolis Steel & Machinery Co., Minneapolis,
Minn.
Morris Machine Works, Baldwinsville, N. Y.
Prescott Steam Pump Co., Fred M., Milwaukee,
Wis.
Southwark Foundry & Machine Co., Phila.
U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.
Wisconsin Engine Co., Corliss, Wis.

Pumps (Windmill)

Deming Co., The, Salem, Ohio.
Douglas, W. & B., Middletown, Conn.
Flint & Walling Mfg. Co., Kendallville, Ind.
Lombard Iron Works & Supply Co., Augusta,
Ga.
U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Punches and Shears

Scully Steel & Iron Co., Chicago, Ill.

Punching and Shearing Machines

International Electric & Engineering Co., 148
Chambers St., New York.
Pels & Co., Henry, 66-68 Broad St., N. Y.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Union Iron Works, The, Hoboken, N. J.
Watson-Stillman Co., 26 Cortlandt St., N. Y.
Wood & Co., R. D., 400 Chestnut St., Phila.

Push Cars

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Quarry Bars

McKiernan Drill Co., 115 B'way, New York.
Perrin, Seamans & Co., 57 Oliver St., Boston.

Quarry Machinery

Bacon, Earle C., Havemeyer Bldg., New York.

Mention the "Record" when writing.

Broderick & Bascom Rope Co., St. Louis, Mo.
 Chandler, Geo. M., 42-9 N. Illinois St., Indianapolis, Ind.
 Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
 Dobbie Foundry & Mach. Co., Niagara Falls, N. Y.
 Indiana Road Machine Co., Fort Wayne, Ind.
 Ingersoll-Rand Co., 11 B'way, New York.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 McKiernan Drill Co., 115 B'way, N. Y.
 Monighan Machine Co., 809-823 Carroll Ave., Chicago, Ill.
 Parker Hoist & Machine Co., 971 N. Francisco Ave., Chicago, Ill.
 Power & Mining Machinery Co., Cudahy, Wis.
 Shaw Co., Willis, 171 La Salle St., Chicago.
 Sturtevant Mill Co., Harrison Sq., Boston.
 Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
 Traylor Engineering Co., 2 Rector St., N. Y.
 Union Iron Works, The, Hoboken, N. J.

Quarry Machinery (Cars)

Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
 Ingersoll-Rand Co., 11 B'way, New York.
 Robins Conveying Belt Co., Passaic, N. J.
 Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
 Youngstown Car Mfg. Co., Youngstown, O.

Quarry Pumps

American Well Works, Aurora, Ill.
 Bacon, Earle C., Havemeyer Bldg., N. Y.
 Dayton Hydraulic Machinery Co., Dayton, O.
 D'Olier Engineering Co., 121 S. 11th St., Phila.
 Edson Mfg. Co., 255-257 Atlantic Ave., Boston.
 Emerson Steam Pump Co., The, Alexandria, Va.
 Morris Machine Works, Baldwinsville, N. Y.
 Perrin, Seamans & Co., 37 Oliver St., Boston.
 Pulsometer Steam Pump Co., 17 Battery Place, New York.
 Wood & Co., R. D., 400 Chestnut St., Phila.

Racks (Cut)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Radiators

American District Steam Co., Lockport, N. Y.
 American Radiator Co., Chicago, Ill.
 Clow & Sons, James B., Chicago, Ill.
 Gurney Heater Mfg. Co., 74 Franklin St., Boston, Mass.
 Kewanee Boiler Co., Kewanee, Ill.

Rail Benders

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Mention the "Record" when writing.

Rail Braces

Indianapolis Switch & Frog Co., Springfield, O.

Rail Cars

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Rail Joints, Fastenings, Etc.

Douglas, Geo. B., 29 B'way, New York.

Indianapolis Switch & Frog Co., Springfield, O.

Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.

Pennsylvania Steel Co., The, Phila., Pa.

Wiener Company, Ernst, 168 Morris Bldg.,
New York.

Wonham-Magor Engineering Works, 29 B'way,
New York.

Railings, Guards, Fences, Etc.

Anchor Post Iron Works, 147 Nassau St., N.Y.

Belmont Iron Works, 22d St., & Washington
Ave., Philadelphia, Pa.

Darby & Sons Co., "Inc.," Edw., Phila., Pa.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Schreiber & Sons Co., L., Cincinnati, O.

Whitehead & Kales Iron Works, Detroit, Mich.

Railroads

Illinois Central R. R., Chicago, Ill.

Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.

Long Island R. R., New York.

Pennsylvania Railroad Co., Phila., Pa.

Wiener Company, Ernst, 168 Morris Bldg.,
New York.

Railroad Track Supplies

Scully Steel & Iron Co., Chicago, Ill.

Rails and Tracks

Douglas, Geo. B., 29 B'way, New York.

Indianapolis Switch & Frog Co., Springfield, O.

Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.

Pennsylvania Steel Co., The, Phila., Pa.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Wiener Company, Ernst, 168 Morris Bldg.,
New York.

Wonham-Magor Engineering Works, 29 B'way,
New York.

Rails, Second-Hand

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Douglas, Geo. B., 29 B'way, New York.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Shaw Co., Willis, 171 La Salle St., Chicago.

Wonham-Magor Engineering Works, 29 B'way,
New York.

Railway Equipment

Allis-Chalmers Co., Milwaukee, Wis.

Railway Supplies (Electric)

General Electric Company, Schenectadv, N. Y.

Mention the "Record" when writing.

Railway Track Specialties and Equipment

Douglas, Geo. B., 2. B'way, New York.
Gulfport Creosoting Co., Gulfport, Miss.
Indianapolis Switch & Frog Co., Springfield, O.
Johns-Manville Co., H. W., 100 William St., New York.
Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.
Pennsylvania Steel Co., The, Phila., Pa.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Union Iron Works, The, Hoboken, N. J.
U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.
Wiener Company, Ernst, 168 Morris Bldg., New York.
Monham-Magor Engineering Works, 29 B'way, New York.
Youngstown Car Mfg. Co., Youngstown, O.

Railway Water Supplies

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Railways (Industrial)

Northern Engineering Works, Detroit, Mich.

Railways, Industrial and Narrow-Gage

Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.
Davenport Locomotive Works, Davenport, Ia.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Union Iron Works, The, Hoboken, N. J.
Wiener Company, Ernst, 168 Morris Bldg., New York.
Wonham-Magor Engineering Works, 29 B'way, New York.
Youngstown Car Mfg. Co., Youngstown, O.

Rate Controller for Filters

Simplex Valve & Meter Co., 112 North Broad St., Philadelphia, Pa.

Reamers (Bridge)

Independent Pneumatic Tool Co., Chicago and New York.

Reamers (Pneumatic)

Independent Pneumatic Tool Co., Chicago and New York.

Rectifiers (Mercury Arc, for Changing Alternating Current to Direct Current)

General Electric Company, Schenectady, N.Y.

Mention the "Record" when writing.

Refrigerating Plants

York Manufacturing Co., York, Pa.

Regulators (Steam)

American District Steam Co., Lockport, N.Y.

Regulators (Water Pressure)

Allis-Chalmers Co., Milwaukee, Wis.

Simplex Valve & Meter Co., 112 North Broad St., Philadelphia, Pa.

Reinforced Concrete Construction (See Fireproof Construction)

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.

American Concrete-Steel Co., Union Bldg., Newark, N. J.

American System of Reinforcing, 189 La Salle St., Chicago, Ill.

Belmont Iron Works, 22d St., & Washington Ave., Philadelphia, Pa.

Bunting Co., J. E., Flatiron Bldg., N. Y.

Concrete-Steel Engineering Co., Park Row Bldg., New York.

Ferro-Concrete Construction Co., The, Richmond & Harriet St., Cincinnati, Ohio.

Gabriel Concrete Reinforcement Co., 1206-1208 Penobscot Bldg., Detroit, Mich.

General Fireproofing Co., The, Youngstown, O.

Hennebique Construction Co., 1170 B'way, New York.

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.

Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.

Maxwell Concrete Steel Co., 516 Penobscot Bldg., Detroit, Mich.

Noelke-Richards Iron W'ks, Indianapolis, Ind.

Portland Iron & Steel Co., Board of Trade Bldg., Boston, Mass.

Raymond Concrete Pile Co., 135 Adams St., Chicago, Ill.

Riverside Bridge Co., Martins Ferry, Ohio.

Rodgers Company, The, Monadnock Block, Chicago, Ill.

Trussed Concrete Steel Co., Detroit, Mich.

Turner Construction Co., 11 B'way, New York.

Riveters (Hydraulic)

Scully Steel & Iron Co., Chicago, Ill.

Riveters (Pneumatic)

Scully Steel & Iron Co., Chicago, Ill.

Riveters (Steam)

Scully Steel & Iron Co., Chicago, Ill.

Riveting Hammers (Pneumatic)

Independent Pneumatic Tool Co., Chicago and New York.

Riveting Machines

Allen, John F., 370-372 Gerard Ave., N. Y.

Ingersoll-Rand Co., 11 B'way, New York.

Mention the "Record" when writing.

Lombard Iron W'ks & Supply Co., Augusta, Ga.
Watson-Stillman Co., The, 26 Cortl'dt, N. Y.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Riveting Machines (Pneumatic)

Independent Pneumatic Tool Co., Chicago and New York.

Rivets (Boiler and Structural)

Scully Steel & Iron Co., Chicago, Ill.

Road Machinery

Austin Manufacturing Co., Chicago, Ill.
Bacon, Earle C., Havemeyer Bldg., N. Y.
Buffalo Steam Roller Co., Buffalo, N. Y.
Chicago Concrete Machinery Co., 20 South Canal St., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Hayward Company, The, 97 Cedar St., N. Y.
Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.
Indiana Road Machine Co., Fort Wayne, Ind.
Iroquois Iron Works, Buffalo, N. Y.
Kelly-Springfield Road Roller Co., Springfield, Ohio.
Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.
Lombard Iron W'ks & Supply Co., Augusta, Ga.
Monarch Road Roller Co., Groton, Tompkins Co., N. Y.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Shaw Co., Willis, 171 La Salle St., Chicago.
Sturtevant Mill Co., Harrison Sq., Boston.
Troy Wagon Works Co., The, Troy, Ohio.

Road Rollers

Austin-Western Mfg. Co., "Ltd.," Chicago, Ill.
Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.
Longenecker & Co., Chas., 150 Nassau St., New York.

Road Rollers (Steam)

Scholl & Co., Julian, 126 Liberty St., N. Y.

Rods (Leveling)

Seelig & Son, R., 170 East Madison St., Chicago, Ill.

Roller Mills (With or Without Air Separators)

Raymond Bros. Impact Pulverizer Co., 143 Laflin St., Chicago, Ill.

Rollers (Horse)

Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
Climax Road Machine Co., Marathon, N. Y.
Indiana Road Machine Co., Fort Wayne, Ind.

Mention the "Record" when writing.

Pittsburg, Tubular Steel Whiffletree Co., Pittsburg, Pa.

Rollers (Steam)

Buffalo Steam Roller Co., Buffalo, N. Y.

Carlin Machinery & Supply Co., "Inc.," 223

Sandusky St., North Side, Pittsburg, Pa.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Erie Machine Shops, Erie, Pa.

Kelly-Springfield Road Roller Co., Springfield, Ohio.

Monarch Road Roller Co., Groton, Tompkins Co., New York.

Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.

Shaw Co., Willis, 171 La Salle St., Chicago.

Rolling Mill Machinery

Allis-Chalmers Co., Milwaukee, Wis.

Tod Co., William, Youngstown, Ohio.

Roofing

American Asphaltum & Rubber Co., Woman's Temple, Chicago, Ill.

American Skylight & Iron Works, 221 Randolph Ave., Jersey City, N. J.

Barrett Mfg. Co., New York and Chicago.

Bayer, J. C., Front & Market Sts., Portland, Oregon.

Berger Mfg. Co., The, Canton, Ohio.

Buffalo Steel Co., Towanda, N. Y.

Garry Iron & Steel Co., Cleveland, Ohio.

General Fireproofing Co., The, Youngstown, Ohio.

Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.

Johns-Manville Co., H. W., 100 William St., New York.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Mullins Co., W. H., 342 Franklin St., Salem, Ohio.

Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Standard Asphalt & Rubber Co., 944 First Nat'l Bank Bldg., Chicago, Ill.

Roofing (Composition)

Warren-Ehret Co., 1204 Land Title Bldg., Philadelphia, Pa.

Roofing (Felt)

Warren-Ehret Co., 1204 Land Title Bldg., Philadelphia, Pa.

Roofing (Iron and Steel)

Scully Steel & Iron Co., Chicago, Ill.

Roofing (Pitch)

Warren-Ehret Co., 1204 Land Title Bldg., Philadelphia, Pa.

Mention the "Record" when writing.

Roofing (Slag)

Warren-Ehret Co., 1204 Land Title Bldg.,
Philadelphia, Pa.

Roofing (Slate, Tile, Metal)

Atlas Roofing Co., 115-117 Clark St., New-
burgh, N. Y.

Warren-Ehret Co., 1204 Land Title Bldg.,
Philadelphia, Pa.

Roofing (Tile)

Warren-Ehret Co., 1204 Land Title Bldg.,
Philadelphia, Pa.

Roofs

Barrett Mfg. Co., New York and Chicago.

Bayer, J. C., Front & Market Sts., Portland,
Oregon.

Bellefontaine Bridge & Steel Co., Bellefon-
taine, Ohio.

Berlin Construction Co., Berlin, Conn.

Boston Bridge Works, The, 47 Winter St.,
Boston, Mass.

Chicago Bridge & Iron Works, Washington
Heights Station, Chicago, Ill.

Clinton Bridge & Iron Works, Clinton, Ia.

Decatur Bridge Co., Decatur, Ill.

Hydrex Felt & Engineering Co., 120 Liberty
St., New York.

Lupton's Sons Co., David, Phila., Pa.

Rodger Company, The, Monadnock Block, Chi-
cago, Ill.

Warren-Ehret Co., 1204 Land Title Bldg.,
Philadelphia, Pa.

Winslow Co., E. J., 138 Jackson Boulevard,
Chicago, Ill.

Roof Trusses

Riverside Bridge Co., Martins Ferry, Ohio.

Rope (Guy)

Leschen & Sons Rope Co., A., St. Louis, Mo.

Rope (Manila)

Broderick & Bascom Rope Co., St. Louis, Mo.

Leschen & Sons Rope Co., A., St. Louis, Mo.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Luptons Son's Co., David, Phila., Pa.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Webster Mfg. Co., 1075 W. 15th St., Chicago,
Ill.; 88-90 Reade St., New York.

Rope (Manila, Sisal and Jute)

American Mfg. Co., 65 Wall St., New York.

Rope (Switch)

Broderick & Bascom Rope Co., St. Louis, Mo.

Leschen & Sons Rope Co., A., St. Louis, Mo.

Rope (Transmission Power)

American Steel & Wire Co., Commercial Nat'l
Bank Bldg., Chicago, Ill.

Mention the "Record" when writing.

Rope (Wire)

American Steel & Wire Co., Commercial Nat'l
Bank Bldg., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis, Mo.
Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.
Chicago House Wrecking Co., West 35th &
Iron Sts., Chicago, Ill.
International Electric & Engineering Co., 148
Chambers St., New York.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Roebbling's Sons Co., John A., Trenton, N. J.
Scully Steel & Iron Co., Chicago, Ill.
Shaw Co., Willis, 171 La Salle St., Chicago.

Rubber Boots

Rubberhide Co., Essex Bldg., Boston, Mass.

Rules and Tapes

Lufkin Rule Co., The, Saginaw, Mich.
Seelig & Son, R., 170 East Madison St., Chi-
cago, Ill.
Wiebusch & Hilger, "Ltd.," 9 Murray St.,
New York.

Sand

Upton, F. R., 9 Clinton St., Newark, N. J.

Sand-Blast Machines

Independent Pneumatic Tool Co., Chicago and
New York.

Sand (Building)

Warner Co., Charles, Wilmington, Del.

Sand (Filter)

Warner Co., Charles, Wilmington, Del.

Sand (Sand-Blast)

Warner Co., Charles, Wilmington, Del.

Sash Operating Apparatus

Lord & Burnham Co., Irvington-on-Hudson,
N. Y.

Sash Operating Device

Hitchings & Co., 1170 B'way, New York.

Sawmill Machinery

Abenague Machine Works, Westminster Sta-
tion, Vt.

Allis-Chalmers Co., Milwaukee, Wis.

Chain Belt Co., Milwaukee, Wis.

Leschen & Sons Rope Co., A., St. Louis, Mo.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Scale Boxes

Contractors Plant Mfg. Co., Buffalo, N. Y.

Cyclopean Iron Works Co., The, 402-404 Clare-
mont Ave., Jersey City, N. J.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Union Iron Works, The, Hoboken, N. J.

Scales

Osgood Scale Co., Binghamton, N. Y.

Richardson Scale Co., 3 Park Row, N. Y.

Mention the "Record" when writing.

Scarifiers

Buffalo Steam Roller Co., Buffalo, N. Y.
Kelly-Springfield Road Roller Co., Springfield,
Ohio.
Scholl & Co., Julian, 126 Liberty St., N. Y.

Schools and Colleges

American School of Correspondence, Chicago.
Clarkson School of Technology, Potsdam, N.Y.
Empire School of Structural Drafting, P. O.
Box 562, Troy, N. Y.
Lafayette College, Easton, Pa.
Lehigh University, So. Bethlehem, Pa.
Michigan College of Mines, Houghton, Mich.
New York University, University Heights,
New York.
Ohio Northern University, Ada, Ohio.
Pennsylvania Military College, Chester, Pa.
Rensselaer Polytechnic Institute, Troy, N.Y.
Rose Polytechnic Institute, Terre Haute, Ind.
School of Structural Drafting, P. O. Box
Box 2122, Boston, Mass.
Sheffield Scientific School, New Haven, Conn.
State University of Iowa, Iowa City, Ia.
Stevens School, Hoboken, N. J.
Tuft's College, Tuft's College P. O., Mass.
University of Illinois, Urbana, Ill.
University of Pennsylvania, Philadelphia, Pa.
University of Vermont, Burlington, Vt.
Washington College of Engineering, Washing-
ton, D. C.
Washington University, St. Louis, Mo.
Western University of Pennsylvania, Alle-
gheny, Pa.

Scientific Books (See Books, Engi- neering and Technical)

McGraw Publishing Co., 239 W. 39th St., N. Y.
Van Nostrand & Co., D., 23 Murray St., N. Y.
Wiley & Sons, John, 43-45 E. 19th St., N. Y.

Scrapers

Climax Road Machine Co., Marathon, N. Y.
Indiana Road Machine Co., Fort Wayne, Ind.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
Pittsburg Tubular Steel Whiffletree Co., Pitts-
burg, Pa.

Scrapers, Road (See Road Mach'y)

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Hough Co., William B., 1336-7 Monadnock
Block, Chicago, Ill.
Indiana Road Machine Co., Fort Wayne, Ind.
Pittsburg Tubular Steel Whiffletree Co., Pitts-
burg, Pa.

Scrapers (Spring Snow)

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Screens (Sand, Coal and Gravel)

Allis-Chalmers Co., Milwaukee, Wis.

Mention the "Record" when writing.

Bacon, Earle C., Havemeyer Bldg., New York.
 Climax Road Machine Co., Marathon, N. Y.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.
 Darby & Sons Co., Inc., Edw., Phila., Pa.
 Perrin, Seamans & Co., 57 Oliver St., Boston.
 Sturtevant Mill Co., Harrison St. Boston.
 Traylor Engineering Co., 2 Rector St., N. Y.
 Union Iron Works, The, Hoboken, N. J.
 Webster Mfg. Co., 1075 W. 15th St., Chicago,
 Ill.; 88-90 Reade St., New York.

Screens (Steel Plate, Revolving, for Stone and Ore)

Bacon, Earle C., Havemeyer Bldg., N. Y.

Searchlights (Electric)

General Electric Co., Schenectady, N. Y.

Second-Hand Machinery

Advance Equipment Co., West End Trust
 Bldg., Philadelphia, Pa.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Buffalo Steam Roller Co., Buffalo, N. Y.
 Carlin Machinery & Supply Co., "Inc.," 223
 Sandusky St., North Side, Pittsburg, Pa.
 Chandler, Geo. M., 42-9 N. Illinois St., In-
 dianapolis, Ind.
 Chicago House Wrecking Co., W. 35th and
 Iron Sts., Chicago, Ill.
 Continental Car & Equipment Co., 17 Battery
 Place, New York.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.
 Crosthwaite, J. L., 15 Broad St., New York.
 Fitzgerald, B. E., 1617 Fifth Ave., McKees-
 port, Pa.
 Lombard Iron Works & Supply Co., Augusta,
 Ga.
 Pittsburg Tubular Steel Whiffletree Co., Pitts-
 burg, Pa.
 Scully Steel & Iron Co., Chicago, Ill.
 Shaw Co., Willis, 171 La Salle St., Chicago, Ill.
 Troy Public Works Co., Utica, N. Y.

Semaphores

U. S. Wind Engine & Pump Co., 280 Water
 St., Batavia, Ill.

Separators (Air) for Graphite, Talc, Lime, Clay, Shale, Dry Paint and Chemical Powders, Etc.

Raymond Bros. Impact Pulverizer Co., 143
 Laflin St., Chicago, Ill.

Separators (Cement, Plaster, Etc.)

Raymond Bros. Impact Pulverizer Co., 143
 Laflin St., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston.
 Watson-Stillman Co., The, 26 Cortlandt St.,
 New York.

Mention the "Record" when writing.

Separators (Steam and Grease)

American District Steam Co., Lockport, N. Y.
Clow & Sons, James B., Chicago, Ill.
Valley Iron Works, Williamsport, Pa.
Webster & Co., Warren, Camden, N. J.
Youngstown Car Mfg. Co., Youngstown, O.

Separators (Steam and Oil)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Service Boxes

Coffin Valve Co., Boston, Mass.

Settees (Iron)

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.
Darby & Sons Co., "Inc.," Edw., Phila., Pa.
Stewart Iron Works Co., The, Cincinnati, O.

Sewage Disposal

Atlas Dryer Co., The, Cleveland, Ohio.
Bunting Co., J. E., Flatiron Bldg., N. Y.
Cameron Septic Tank Co., 812-813 Monadnock Block, Chicago, Ill.
Lewis & Kitchen, 433 Wabash Ave., Chicago.
Merritt & Co., 1015 Ridge Ave., Phila., Pa.
Pacific Flush-Tank Co., 184 La Salle St., Chicago, Ill.
Trussed Concrete Steel Co., Detroit, Mich.

Sewage Pumping Machinery

Allis-Chalmers Co., Milwaukee, Wis.
Dayton Hydraulic Machinery Co., Dayton, O.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
D'Olier Engineering Co., 121 S. 11th St., Phila.
Edson Mfg. Co., 255-257 Atlantic Ave., Boston.
Emerson Steam Pump Co., The, Alexandria, Va.
Lawrence Machine Co., Lawrence, Mass.
Merritt & Co., 1015 Ridge Ave., Philadelphia.

Sewer Braces

Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
Perrin, Seamans & Co., 57 Oliver St., Boston.

Sewer Buckets

McCoy Co., Henry J., 65-67 Dey St., N. Y.
Perrin, Seamans & Co., 57 Oliver St., Boston.

Sewer Excavating Machinery

Municipal Excavating & Contracting Co., Jackson Boulevard and Mich. Ave., Chicago.

Sewer Flushers (Automatic)

Merritt & Co., 1015 Ridge Ave., Phila., Pa.
Pacific Flush-Tank Co., The, 184 La Salle St., Chicago, Ill.

Sewer (Manhole Covers)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Mention the "Record" when writing.

Sewer Pipe

Buckeye Fire Clay Co., Uhrichsville, Ohio.
Clow & Sons, James B., Chicago, Ill.
Evans & Howard Fire Brick Co., St. Louis, Mo.
National Fire Proofing Co., 115 Adams St., Chicago, Ill.
National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.
N. Y. State Sewer Pipe Co., Rochester, N. Y.
Patton Clay Mfg. Co., Patton, Pa.
Robinson Clay Product Co. of New York, Flatiron Bldg., New York.
Trussed Concrete Steel Co., Detroit, Mich.
Warner Co., Charles, Wilmington, Del.

Shackles

Leschen & Sons Rope Co., A., St. Louis, Mo.

Shafting

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Shafting (Polished)

Scully Steel & Iron Co., Chicago, Ill.

Shearing Machines

Pels & Co., Henry, 66-68 Broad St., New York.
Scully Steel & Iron Co., Chicago, Ill.

Shears (Bar)

Pels & Co., Henry, 66-68 Broad St., New York.

Sheaves (Wire and Manhole Rope)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Sheaves for Wire Rope (Hoisting)

Broderick & Bascom Rope Co., St. Louis, Mo.
Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.
Contractors Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Mach. Co., Niagara Falls, N. Y.
Kiesler Co., The, 82 Pratt St., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Lombard Iron Works & Supply Co., Augusta, Ga.
Patterson Co., W. W., Pittsburg, Pa.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.; 88-90 Reade St., New York.

Sheet Iron Works

Graver Tank Works, Wm., E. Chicago, Ind.

Sheet Metal Work

Atlas Roofing Co., 115-117 Clark St., Newburgh, N. Y.
Bayer, J. C., Front and Market Sts., Portland, Ore.
Berger Mfg. Co., The, Canton, Ohio.
Graver Tank Works, Wm., E. Chicago, Ind.

Mention the "Record" when writing.

Irwin Mfg. Co., Thos. W., Rebecca and Craig
 Sts., North Side, Pittsburg, Pa.
 Lombard Iron Works & Supply Co., Augusta,
 Ga.
 Mesker & Bro., 421 S. 6th St., St. Louis, Mo.
 Mullins Co., W. H., 342 Franklin St., Salem, O.
 Raymond Bros. Impact Pulverizer Co., Chi-
 cago, Ill.
 Rogers-Shear Co., The, Warren, Pa.
 Sharon Boiler Works, Sharon, Pa.
 Sterling Wheelbarrow Co., Milwaukee, Wis.
 Union Iron Works, The, Hoboken, N. J.
 Van Noorden Co., E., 950 Mass. Ave., Boston.
 Whitehead & Kales Iron W'ks, Detroit, Mich.

Sheets (Galvanized)

Scully Steel & Iron Co., Chicago, Ill.

Sheets (Iron and Steel)

American Steel & Wire Co., Commercial Nat'l
 Bank Bldg., Chicago, Ill.
 Scully Steel & Iron Co., Chicago, Ill.

Sheets (Roofing)

Scully Steel & Iron Co., Chicago, Ill.

Sheet Steel (Hot-Rolled)

Scully Steel & Iron Co., Chicago, Ill.

Shoring and Underpinning

Eichleay, Jr., Co., John, Pittsburg, Pa.

Shovels and Picks (Hand)

Chicago House Wrecking Co., W. 35th and
 Iron Sts., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 Perrin, Seamans & Co., 57 Oliver St., Boston.

Shovels (Steam)

Bucyrus Co., The, S. Milwaukee, Wis.
 Chandler, Geo. M., 42-9 N. Illinois St., In-
 dianapolis, Ind.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.
 Hayward Co., The, 97 Cedar St., N. Y.
 Marion Steam Shovel Co., The, 640 W. Center
 St., Marion, Ohio.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Shaw Co., Willis, 171 La Salle St., Chicago.
 Souther & Co., John, Boston, Mass.
 Thew Automatic Shovel Co., Lorain, Ohio.
 Troy Public Works Co., Utica, N. Y.

Shredders for Pulp Mills, Extract Plants, Back Roots and all Fi- brous Material

Raymond Bros. Impact Pulverizer Co., 143
 Laflin St., Chicago, Ill.
 Williams Patent Crusher & Pulverizer Co.,
 Chicago, Ill.

Shutters (Fireproof Rolling)

Wilson Mfg. Co., Jas. G., 3 W. 29th St., N. Y.

Mention the "Record" when writing.

Shutters (Rolling)

Wilson Mfg. Co., Jas. G., 3 W. 29th St., N. Y.

Shutters (Steel Rolling)

Wilson Mfg. Co., Jas. G., 3 W. 29th St., N. Y.

Siding (Sheet Steel)

Mesker & Bro., 421 S. 6th St., St. Louis, Mo.

Sidewalks

Kosmos Portland Cement Co., "Inc.," 614-616

Paul Jones Bldg., Louisville, Ky.

Rodgers Co., The, Monadnock Block, Chicago.

Signaling Apparatus

General Electric Co., Schenectady, N. Y.

Signaling Apparatus (Electric)

General Electric Co., Schenectady, N. Y.

Skips

Contractors Plant Mfg. Co., Buffalo, N. Y.

Cyclopean Iron Works Co., The, 402-404 Claremont Ave., Jersey City, N. J.

Dobbie Foundry & Mach. Co., Niagara Falls, N. Y.

Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.

McCoy Co., Henry J., 65-67 Dey St., N. Y.

Parker Hoist & Machine Co., 971 N. Francisco Ave., Chicago, Ill.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Ransome Concrete Machinery Co., Dunellen, N. J.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Traylor Engineering Co., 2 Rector St., N. Y.

Union Iron Works, The, Hoboken, N. J.

Wiener Co., Ernst, 168 Morris Bldg., N. Y.

Youngstown Car Mfg. Co., Youngstown, O.

Skylight Ventilating Apparatus

American Skylight & Iron Works, 221 Randolph Ave., Jersey City, N. J.

Bayer, J. C., Front and Market Sts., Portland, Ore.

Berger Mfg. Co., The, Canton, Ohio.

Drouvé Co., G., Bridgeport, Conn.

Lupton's Sons Co., David, Philadelphia, Pa.

Mesker & Bro., 421 S. 6th St., St. Louis, Mo.

Mullins Co., W. H., 342 Franklin St., Salem, O.

Van Noorden Co., E., 950 Mass. Ave., Boston.

Skylights

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.

American Skylight & Iron Works, 221 Randolph Ave., Jersey City, N. J.

Atlas Roofing Co., 115-117 Clark St., Newburgh, N. Y.

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.

Bayer, J. C., Front and Market Sts., Portland, Ore.

Mention the "Record" when writing.

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.
Berger Mfg. Co., The, Canton, Ohio.
Brooks & Co., T. H., Cleveland, Ohio.
Burt Mfg. Co., Akron, Ohio.
Drouvé Co., G., Bridgeport, Conn.
Irwin Mfg. Co., Rebecca and Craig Sts., North Side, Pittsburg, Pa.
Lupton's Sons Co., David, Philadelphia, Pa.
Mesker & Bro., 421 S. 6th St., St. Louis, Mo.
Mullins Co., W. H., 342 Franklin St., Salem, O.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Van Noorden Co., E., 950 Mass. Ave., Boston.

Slag

Warren-Ehret Co., 1204 Land Title Bldg., Philadelphia, Pa.

Slate (Workers and Dealers)

Clow & Sons, James B., Chicago, Ill.

Sleeves (Pipe)

Clow & Sons, James B., Chicago, Ill.

Sluice Gates

Chapman Valve Mfg. Co., Indian Orchard, Mass.

Coffin Valve Co., Boston, Mass.

Coldwell-Wilcox Co., Newburgh, N. Y.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Smith Co., S. Morgan, York, Pa.

Smokestacks (Iron and Steel)

Graver Tank Works, Wm., East Chicago, Ind.

Smoke Stacks (Steel)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Sockets

Leschen & Sons Rope Co., A., St. Louis, Mo.

Speaking Tubes

International Electric & Engineering Co., 148 Chambers St., New York.

Ostrander & Co., W. R., 22 Dey St., N. Y.

Spikes (Railroad)

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Springs (Car)

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Springs (Steel)

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Sprinkling Carts

Baltimore Cooperage Co., Baltimore, Md.

Climax Road Machine Co., Marathon, N. Y.

Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.

Studebaker Bros. Mfg. Co., South Bend, Ind.

Mention the "Record" when writing.

Stairs (Spiral)

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
Mesker & Bro., 421 So. 6th St., St. Louis, Mo.
Raquette Foundry & Supply Co., Massena, New York.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Standpipes

East Jersey Pipe Co., 90 West St., New York.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Standpipes, Tanks, Towers

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
Carroll-Porter Boiler & Tank Co., Empire Bldg., Pittsburgh, Pa.
Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Ia.
Des Moines Bridge & Iron Works, Des Moines, Ia.
Graver Tank Works, Wm., East Chicago, Ind.
Kewanee Boiler Co., Kewanee, Ills.
Lombard Iron W'ks & Supply Co., Augusta, Ga.
Morris & Co., I. P., Philadelphia, Pa.
National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.
Petroleum Iron Works Co., Sharon, Pa.
Piter-Conley Mfg. Co., Pittsburgh, Pa.
Scaife & Sons Co., Wm. B., Pittsburgh, Pa.
Sharon Boiler Works, Sharon, Pa.
Struthers-Wells Co., Warren, Pa.
Tippett & Wood, Phillipsburg, N. J.
U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.
Virginia Bridge & Iron Co., Roanoke, Va.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
Whitehead & Kales Iron Works, Detroit, Mich.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Steam Power Plants

Pope, Wm. A., 80 Lake St., Chicago, Ill.

Steam Specialties

American District Steam Co., Lockport, N.Y.
Johns-Manville Co., H. W., 100 William St., New York.
Lunkenheimer Co., Cincinnati, Ohio.
Manning, Maxwell & Moore, 85-89 Liberty St., New York.
Walworth Mfg., Co., Boston, Mass.

Steamboat Ratchets

Patterson Co., W. W., Pittsburgh, Pa.

Mention the "Record" when writing.

Steel Bars for Concrete Reinforcement

Rogers-Shear Co., The, Warren Pa.

Steel Buildings

Decatur Bridge Co., Decatur, Ill.

Eichleay, Jr., Co., John, Pittsburg, Pa.

Steel Construction

Riverside Bridge, Co., Martins Ferry, Ohio.

Steel Plate Construction

Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

Clinton Bridge & Iron Works, Clinton, Ia.

Decatur Bridge Co., Decatur, Ill.

Graver Tank Works, Wm., East Chicago, Ind.

Insley Iron Works, Indianapolis, Ind.

Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.

Kenwood Bridge Co., 1416 First Nat'l Bank Bldg., Chicago, Ill.

McNeil & Bro. Co., James, Pittsburg, Pa.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Petroleum Iron Works Co., Sharon, Pa.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Struthers-Wells Co., Warren, Pa.

Tippett & Wood, Phillipsburg, N. J.

Union Iron Works, The, Hoboken, N. J.

Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Whitehead & Kales Iron Works, Detroit, Mich.

Youngstown Car Mfg. Co., The, Youngstown, Ohio.

Steel Ribs and Lagging

Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.

Steel Substructures for Tanks

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Steel (Tape Line)

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Stokers (Mechanical)

Pabcock & Wilcox Co., 85 Liberty St., N. Y.

Cummer & Sons Co., F. D., 413 Arcade, Cleveland, Ohio.

Green Engineering Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Murphy Iron Works, Detroit, Mich.

Westinghouse Machine Co., Pittsburg, Pa.

Stone (Broken and Quarried)

Chandler, Geo. M., 42-9 North Illinois St., Indianapolis, Ind.

Mention the "Record" when writing.

Upton, F. R., 9 Clinton St., Newark, N. J.
Warner Co., Charles, Wilmington, Del.

Stone Crusher Parts and Repairs

Bacon, Earle C., Havemeyer Bldg., N. Y.
Climax Road Machine Co., Marathon, N. Y.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
Pennsylvania Steel Co., The, Philadelphia, Pa.
Pittsburg Tubular Steel Whiffletree Co., Pitts-
burg, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Sturtevant Mill Co., Harrison Sq., Boston.
Traylor Engineering Co., 2 Rector St., N. Y.

Stone Dressing Machines

Ingersoll-Rand Co., 11 B'way, New York.

Straightening Machines (Angle, Beam and Channel)

Scully Steel & Iron Co., Chicago, Ill.

Strainers (Quick-Cleaning)

Emerson Steam Pump Co., The, Alexandria,
Va.

Strainers (Quick-Cleaning) (For Suction or Intake Pipes)

Emerson Steam Pump Co., The, Alexandria,
Va.

Strainers (Well)

American Injector Co., Congress & 7th Sts.,
Detroit, Mich.

American Well Works, Aurora, Ill.

Douglas, W. & B., Middletown, Conn.

U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Street-Cleaning Implements, Ma- chinery and Snow Plows

Climax Road Machine Co., Marathon, N. Y.
Monarch Road Roller Co., Groton, Tompkins
Co., N. Y.

Studebaker Bros. Mfg. Co., South Bend., Ind.

Street Sprinklers

Studebaker Bros. Mfg. Co., South Bend., Ind.

Structural and Ornamental Iron Works

American Bridge Co., 42 B'way, New York.
Bellefontaine Bridge & Steel Co., Bellefon-
taine, Ohio.

Belmont Iron Works, 22d St. & Washington
Ave., Philadelphia, Pa.

Berlin Construction Co., Berlin, Conn.

Boston Bridge Works, 47 Winter St., Bos-
ton, Mass.

Brooks & Co., T. H., Cleveland, Ohio.

Chicago Bridge & Iron Works, Washington
Heights Station, Chicago, Ill.

Chicago House Wrecking Co., West 35th &
Iron Sts., Chicago, Ill.

Mention the "Record" when writing.

Cleveland City Forge & Iron Co., Cleveland, Ohio.

Clinton Bridge & Iron Works, Clinton, Ia.

Decatur Bridge Co., Decatur, Ill.

Douglas, Geo. B., 29 B'way, New York.

Eastern Bridge & Structural Co., Worcester, Mass.

Insley Iron Works, Indianapolis, Ind.

Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.

Kenwood Bridge Co., 1416 First Nat'l Bank Bldg., Chicago, Ill.

Mesker & Bro., 421 So. 6th St., St. Louis, Mo.

Noelke-Richards Iron Works, Indianapolis, Ind.

Pennsylvania Steel Co., The, Phila., Pa.

Schreiber & Sons Co., L., Cincinnati, Ohio.

Snare & Triest Co., The, 143 Liberty St., N. Y.

Virginia Bridge & Iron Co., Roanoke, Va.

Whitehead & Kales Iron Works, Detroit, Mich.

Structural Iron and Steel Works

Burger Iron Company, The, Akron, Ohio.

Structural Iron Work

Riverside Bridge Co., Martins Ferry, Ohio.

Structural Material

Scully Steel & Iron Co., Chicago, Ill.

Structural Steel

Baltimore Bridge Co., Bush St. and B. & O. R. R., Baltimore, Md.

Brooks & Co., T. H., Cleveland, Ohio.

Douglas, Geo. B., 29 B'way, New York.

Eichleay, Jr., Co., John, Pittsburg, Pa.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Riverside Bridge Co., Martins Ferry, Ohio.

Standard Concrete Steel Co., 31st & 32d Sts., East River, New York.

Terry & Tench Co., "Inc.," 131st St. & Lexington Ave., New York.

Sulphate of Iron

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Superheaters

Babcock & Wilcox Co., 85 Liberty St., N. Y.

Power Specialty Co., 111 B'way, New York.

Supporter and Spacer (Concrete-Steel)

Miller & Co., O. J., Victoria Bldg., St. Louis, Mo.

Supporter and Spacer (for Concrete Bars)

Miller & Co., O. J., Victoria Bldg., St. Louis, Mo.

Mention the "Record" when writing.

Surveyor Supplies (See Engineers' and Surveyors' Instruments and Supplies)

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.

Surveys (Water Supply)

Presler Prospecting & Engineering Co., Cincinnati, Ohio.

Swinging Gears

Dake Engine Co., Grand Haven, Mich.

Switchboards

C. & C. Electric Co., Garwood, N. J.

Switch Stands and Switches (See Frogs)

Indianapolis Switch & Frog Co., Springfield, Ohio.

Jackson, George W., "Inc.," 169-179 W. Jackson Boulevard, Chicago, Ill.

Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.

Pennsylvania Steel Co., The, Phila., Pa.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Wiener Co., Ernst, 168 Morris Bldg., N. Y.

Wonham-Magor Engineering Works, 29 B'way, New York.

Switches (Overhead)

Reading Crane & Hoist Works, Reading, Pa.

Tank Valves

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Tanks and Towers

Baltimore Cooperage Co., Baltimore, Md.

Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.

Chandler, Geo. M., 42-9 West Illinois St., Indianapolis, Ind.

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

Clinton Bridge & Iron Works, Clinton, Ia.

Flint & Walling Mfg. Co., Kendallville, Ind.

Graver Tank Works, Wm., East Chicago, Ind.

Kenwood Bridge Co., 1416 First Nat'l Bank Bldg., Chicago, Ill.

Kewanee Boiler Co., Kewanee, Ill.

Lombard Iron W'ks & Supply Co., Augusta, Ga.

Memphis Bridge Co., Memphis, Tenn.

Petroleum Iron Works. Co., Sharon, Pa.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Sharon Boiler Works, Sharon, Pa.

Struthers-Wells Co., Warren, Pa.

Tippett & Wood, Phillipsburg, N. J.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Virginia Bridge & Iron Co., Roanoke, Va.

Mention the "Record" when writing.

Wood & Co., R. D., 400 Chestnut St., Phila., Pa.

Tanks (Air Compressors)

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Bury Compressor Co., Erie, Pa.
Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.
Chicago House Wrecking Co., West 35th & Iron Sts., Chicago, Ill.
East Jersey Pipe Co., 90 West St., N. Y.
Graver Tank Works, Wm., East Chicago, Ind.
Ingersoll-Rand Co., 11 B'way, New York.
Janney, Steinmetz & Co., Philadelphia, Pa.
Kewanee Boiler Co., Kewanee, Ill.
McKiernan Drill Co., 115 B'way, New York.
McNeil & Bro. Co., James, Pittsburg, Pa.
Northern Engineering Works, Detroit, Mich.
Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Sharon, Pa.
Shaw Co., Willis, 171 La Salle St., Chicago.
Struthers-Wells Co., Warren, Pa.

Tanks (Cement)

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
East Jersey Pipe Co., 90 West St., N. Y.
Graver Tank Works, Wm., East Chicago, Ind.
Rodgers Company, The, Monadnock Block, Chicago, Ill.
Sharon Boiler Works, Sharon, Pa.
Struthers-Wells Co., Warren, Pa.
Trussed Concrete Steel Co., Detroit, Mich.
Winslow Co., E. J., 138 Jackson Boulevard, Chicago, Ill.

Tanks (Condenser)

Allis-Chalmers Co., Milwaukee, Wis.
Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.
East Jersey Pipe Co., 90 West St., New York.
Graver Tank Works, Wm., East Chicago, Ind.
Kewanee Boiler Co., Kewanee, Ills.
Petroleum Iron Works Co., Sharon, Pa.
Sharon Boiler Works, Sharon, Pa.
Struthers-Wells Company, Warren, Pa.

Tanks (Creosoting)

Graver Tank Works, Wm., East Chicago, Ind.

Tanks (Cyanide)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Tanks (Elevator)

Graver Tank Works, Wm., East Chicago, Ind.

Tanks (Flush)

Kewanee Boiler Co., Kewanee, Ill.
Pacific Flush-Tank Co., 184 La Salle St., Chicago, Ill.
Sharon Boiler Works, Sharon, Pa.

Mention the "Record" when writing.

Tanks (Galvanized Iron)

Graver Tank Works, Wm., E. Chicago, Ind.

Tanks (Gas and Oil)

American Well Works, Aurora, Ill.

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

Chicago House Wrecking Co., W. 35th and Iron Sts., Chicago, Ill.

Graver Tank Works, Wm., E. Chicago, Ind.

Janney, Steinmetz & Co., Philadelphia, Pa.

McNeil & Bro. Co., James, Pittsburg, Pa.

Petroleum Iron Works Co., Sharon, Pa.

Power & Mining Machinery Co., Cudahy, Wis.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Sharon Boiler Works, Sharon, Pa.

Struthers-Wells Co., Warren, Pa.

Tippett & Wood, Phillipsburg, N. J.

Wood & Co., R. D., 400 Chestnut St., Phila.

Tanks (Grain Storage)

Graver Tank Works, Wm., E. Chicago, Ind.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Tanks (Ice)

Bayer, J. C., Front and Market Sts., Portland, Ore.

Tanks (Iron and Steel)

Graver Tank Works, Wm., E. Chicago, Ind.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Tanks (Seamless Steel)

Janney, Steinmetz & Co., Philadelphia, Pa.

Tanks (Linseed Oil)

Graver Tank Works, Wm., E. Chicago, Ind.

Tanks (Oil)

Graver Tank Works, Wm., E. Chicago, Ind.

Tanks (Septic)

Bayer, J. C., Front and Market Sts., Portland, Ore.

Cameron Septic Tank Co., 812-813 Monadnock Block, Chicago, Ill.

Pacific Flush-Tank Co., 184 La Salle St., Chicago, Ill.

Sharon Boiler Works, Sharon, Pa.

Tank Spouts and Fixtures

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Tanks (Steel)

Graver Tank Works, Wm., E. Chicago, Ind.

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Tanks (Water)

Abenague Machine Works, Westminster Station, Vt.

American Well Works, Aurora, Ill.

Baltimore Cooperage Co., Baltimore, Md.

Mention the "Record" when writing.

Bayer, J. C., Front and Market Sts., Portland, Ore.
 Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
 Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.
 Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.
 Clinton Bridge & Iron Works, Clinton, Ia.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Graver Tank Works, Wm., E. Chicago, Ind.
 Kewanee Boiler Co., Kewanee, Ill.
 Lombard Iron Works & Supply Co., Augusta, Ga.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 McNeil & Bro. Co., James, Pittsburg, Pa.
 Memphis Bridge Co., Memphis, Tenn.
 National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.
 Northern Engineering Works, Detroit, Mich.
 Petroleum Iron Works Co., Sharon, Pa.
 Pittsburg Filter Mfg. Co., Farmers Bank Bldg., Pittsburg, Pa.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Rodgers Co., The, Monadnock Block, Chicago.
 Sharon Boiler Works, Sharon, Pa.
 Struthers-Wells Co., Warren, Pa.
 Tippet & Wood, Phillipsburg, N. J.
 U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Wood & Co., R. D., 400 Chestnut St., Phila.

Tanks (Wooden)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Tapes (Steel) (See Engineers' and Surveyors' Instruments)

Ainsworth & Sons, Wm., Denver, Col.
 Chicago Steel Tape Co., 6233 Cottage Grove Ave., Chicago, Ill.
 Lufkin Rule Co., The, Saginaw, Mich.
 Perrin, Seamans & Co., 57 Oliver St., Boston.
 Seelig & Son, R., 170 E. Madison St., Chicago.
 Wiebusch & Hilger, "Ltd.," 9 Murray St., New York.
 Winslow Co., E. J., 138 Jackson Boulevard, Chicago, Ill.

Tapes (Wind-Up Metallic)

Wiebusch & Hilger, "Ltd.," 9 Murray St., New York.

Tapping Machines

American District Steam Co., Lockport, N. Y.
 Clow & Sons, James B., Chicago, Ill.
 Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.

Mention the "Record" when writing.

Tar

Barrett Mfg. Co., New York and Chicago.

Technical Books (See Books, Engineering and Technical)

McGraw Publishing Co., 239 W. 39th St., N. Y.
Van Nostrand & Co., D., 23 Murray St., N. Y.
Wiley & Sons, John, 43-45 E. 19th St., N. Y.

Telegraph and Telephone Pole Equipment

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Telephone and Telegraph Wire

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Terra Cotta (Architectural)

Bayer, J. C., Front and Market Sts., Portland, Ore.

Terra Cotta (Fireproofing)

Bayer, J. C., Front and Market Sts., Portland, Ore.

National Fire Proofing Co., 115 Adams St., Chicago, Ill.

Patton Clay Mfg. Co., Patton, Pa.

Test Borings

American Test Boring & Drilling Co., 32 B'way, New York.

Presler Prospecting & Engineering Co., Cincinnati, Ohio.

Testing Laboratories (Chemists', Etc.)

Conard, W. R., 1004 High St., Burlington, N. J.

Dow & Smith, 24-26 E. 21st St., New York.

Gulick-Henderson & Co., 439 Third Ave., Pittsburgh, Pa.

Hallet, Nelson A., Ashburton Place, Boston.

Hunt & Co., Robert W., Monongahela Bank Bldg., Pittsburgh, Pa.

Lehigh Valley Testing Laboratory, Pittsburgh, Pa.

Love, E. G., 122 Bowery, New York.

Lunkenheimer Co., Cincinnati, Ohio.

McKenna, Chas. F., Hudson Terminal Bldg., New York.

Meade Testing Laboratories, Nazareth, Pa.

Michigan Technical Laboratory, 58 Lafayette Ave., Detroit, Mich.

Pittsburg Testing Laboratory, 325 Water St., Pittsburg, Pa.

Thimble (Wire Rope)

Léschen & Sons Rope Co., A., St. Louis, Mo.

Ties (Steel and Wood)

Douglas, Geo. B., 29 B'way, New York.

Gulfport Creosoting Co., Gulfport, Miss.

Mention the "Record" when writing.

Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.

Pennsylvania Steel Co., The, Philadelphia, Pa.

Ties (Steel and Wood Creosoted)

Barber Asphalt Paving Co., Maurer, N. J.

Tile

Bayer, J. C., Front and Market Sts., Port-
land, Ore.

Evens & Howard Fire Brick Co., St. Louis,
Mo.

N. Y. State Sewer Pipe Co., Rochester, N. Y.

Warren-Ehret Co., 1204 Land Title Bldg., Phil-
adelphia, Pa.

Tile (Hollow, Terra Cotta)

National Fire Proofing Co., 115 Adams St.,
Chicago, Ill.

Tile (Partition)

National Fire Proofing Co., 115 Adams St.,
Chicago, Ill.

Tiller Rope

Leschen & Sons Rope Co., A., St. Louis, Mo.

Tipples and Bunkers

Belmont Iron Works, 22d St. and Washington
Ave., Philadelphia, Pa.

Insley Iron Works, Indianapolis, Ind.

Webster Mfg. Co., 1075 W. 15th St., Chicago,
Ill.; 88-90 Reade St., New York.

Tipples (Mine)

Minneapolis Steel & Machinery Co., Minne-
apolis, Minn.

**Tools and Supplies (Factory, Rail-
way, Etc.)**

Scully Steel & Iron Co., Chicago, Ill.

Tools (Calking)

Ingersoll-Rand Co., 11 B'way, New York.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Union Iron Works, The, Hoboken, N. J.

Tools (Contractors', Etc.)

Carlin Machinery & Supply Co., "Inc.," 223
Sandusky St., North Side, Pittsburg, Pa.

Century Cement Machine Co., 186 W. Main
St., Rochester, N. Y.

Chandler, Geo. M., 42-9 N. Illinois St., In-
dianapolis, Ind.

Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.

Indiana Road Machine Co., Fort Wayne, Ind.

International Electric & Engineering Co., 148
Chambers St., New York.

McCoy Co., Henry J., 65-67 Dey St., N. Y.

Patterson Co., W. W., Pittsburg, Pa.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Tow Lines (Manila)

American Mfg. Co., 65 Wall St., New York.

Mention the "Record" when writing.

Towers and Tanks (Water)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Towers (Cement Cooling)

Rodgers Co., The, Monadnock Block, Chicago.

Towers (Steel)

Eichleay, Jr., Co., John, Pittsburg, Pa.

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Towers (Water Cooling)

Baltimore Cooperage Co., Baltimore, Md.

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.

Graver Tank Works, Wm., E. Chicago, Ind.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Struthers-Wells Co., Warren, Pa.

Williamson Bros. Co., Aramingo Ave. and Cumberland St., Philadelphia, Pa.

Tracing Cloth

Kolesch & Co., 138 Fulton St., New York.

Track (Cast-Iron Plate)

Wiener Co., Ernst, 168 Morris Bldg., N. Y.

Track Drills

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Track Gages

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Track-Laying Cars

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Track Levels

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Track Tools

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Tracks, Portable (See Railway Track Specialties)

Indianapolis Switch & Frog Co., Springfield, Ohio.

Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.

Northern Engineering Works, Detroit, Mich.

Pennsylvania Steel Co., The, Philadelphia, Pa.

Union Iron Works, The, Hoboken, N. J.

Wiener Co., Ernst, 168 Morris Bldg., N. Y.

Wonham-Magor Engineering Works, 29 B'way, New York.

Youngstown Car Mfg. Co., Youngstown, O.

Traction Ditching Machines

Austin Drainage Excavator Co., F. C., Railway Exchange, Chicago, Ill.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Mention the "Record" when writing.

Marion Steam Shovel Co., The, 640 W. Center St., Marion, Ohio.

Municipal Engineer'g & Contracting Co., Jackson Boulevard and Mich. Ave., Chicago.

Parsons Co., G. W., 306 Observatory Bldg., Des Moines, Ia.

Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.

Shaw Co., Willis, 171 La Salle St., Chicago.

Thew Automatic Shovel Co., Lorain, Ohio.

Tramways (Aerial Wire Rope)

Leschen & Sons Rope Co., A., St. Louis, Mo.

Tramways (Overhead)

Reading Crane & Hoist Works, Reading, Pa.

Tramways (Wire Rope)

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

Broderick & Bascom Rope Co., St. Louis, Mo.

Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.

Leschen & Sons Rope Co., A., St. Louis, Mo.

New York Cableway & Engineering Co., 2 Rector St., New York.

Roebbling's Sons Co., John A., Trenton, N. J.

Youngstown Car Mfg. Co., Youngstown, O.

Transits

Ainsworth & Sons, Wm., Denver, Col.

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.

Seelig & Son, R., 170 E. Madison St., Chicago.

Transmission Rope

American Mfg. Co., 65 Wall St., New York.

Transom Operators

Lord & Burnham Co., Irvington-on-Hudson, N. Y.

Traps (Steam)

American District Steam Co., Lockport, N. Y.

Clow & Sons, James B., Chicago, Ill.

Sturtevant Co., B. F., Hyde Park, Mass.

Tree Guards (Iron)

Anchor Post Iron Works, 147 Nassau St., N.Y.

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.

Darby & Sons Co., "Inc.," Edw., Phila., Pa.

Stewart Iron Works Co., The, Cincinnati, O.

Trench Braces

Cleveland City Forge & Iron Co., Cleveland, O.

Clow & Sons, James B., Chicago, Ill.

Dunn Mfg. Co., Pittsburg, Pa.

Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.

McCoy Co., Henry J., 65-67 Dey St., N. Y.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Mention the "Record" when writing.

Trench Excavating Machinery

Carson Trench Machine Co., 16 Dorrance St.,
Boston, Mass.
Edson Mfg. Co., 255-257 Atlantic Ave., Boston.
Hayward Co., The, 97 Cedar St., New York.
Jackson, George W., "Inc.," 169-179 W. Jackson
Boulevard, Chicago, Ill.
Marion Steam Shovel Co., 640 W. Center St.,
Marion, Ohio.
Municipal Engineer's & Contracting Co., Jackson
Boulevard and Mich. Ave., Chicago.
Parsons Co., G. W., 306 Observatory Bldg.,
Des Moines, Ia.
Shaw Co., Willis, 171 La Salle St., Chicago.

Trolleys

Chisholm & Moore Mfg. Co., Cleveland, O.
Dobbie Foundry & Mach. Co., Niagara Falls,
N. Y.
General Electric Co., Schenectady, N. Y.
Maris Bros., 56th and Gray's Ave., Phila., Pa.
Northern Engineering Works, Detroit, Mich.
Reading Crane & Hoist Works, Reading, Pa.
Union Iron Works, The, Hoboken, N. J.
Whitehead & Kales Iron W'ks, Detroit, Mich.

Trolleys (I-Beam)

Scully Steel & Iron Co., Chicago, Ill.

Trowels (Masons')

Wiebusch & Hilger, "Ltd.," 9 Murray St.,
N. Y.

Tube Mills

Smidth & Co., F. L., 39-41 Cortlandt St., N. Y.

Tubes (Boiler)

Carroll-Porter Boiler & Tank Co., Empire
Bldg., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.

Tunnels and Subways

Jackson, George W., "Inc.," 169-179 W. Jackson
Boulevard, Chicago, Ill.

Turbine Pumps

American Well Works, Aurora, Ill.
Dayton Hydraulic Machinery Co., Dayton, O.
De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 121 S. 11th St., Phila.
Erie Pump & Engine Co., Erie, Pa.
Lawrence Machine Co., Lawrence, Mass.
Watson-Stillman Co., The, 26 Cortlandt St.,
New York.

Turbine Waterwheels

Lombard Iron Works & Supply Co., Augusta,
Ga.
Smith Co., S. Morgan, York, Pa.
Watson-Stillman Co., The, 26 Cortlandt St.,
New York.

Turbines ("Curtis" Steam)

General Electric Co., Schenectady, N. Y.

Mention the "Record" when writing.

Turbines (Hydraulic)

Allis-Chalmers Co., Milwaukee, Wis.
Leffel & Co., James, Springfield, Ohio.
Lombard Iron Works & Supply Co., Augusta, Ga.
Smith Co., S. Morgan, York, Pa.
Trump Mfg. Co., 114 N. Greenmount Ave., Springfield, Ohio.
Watson-Stillman Co., The, 26 Cortlandt St., New York.

Turbines (Steam)

Allis-Chalmers Co., Milwaukee, Wis.
De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 121 S. 11th St., Phila.
General Electric Co., Schenectady, N. Y.
Morris & Co., I. P., Philadelphia, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Machine Co., Pittsburg, Pa.

Turnbuckles

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.
Broderick & Bascom Rope Co., St. Louis, Mo.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
International Electric & Engineering Co., 148 Chambers St., New York.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Pittsburgh Mfg. Co., Pittsburgh, Pa.

Turntables

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.
Boston Bridge Works, 47 Winter St., Boston.
Brown Hoisting Machinery Co., The, 4403 St. Clair Ave., Cleveland, Ohio.
Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.
Indianapolis Switch & Frog Co., Springfield, O.
Koppel Co., Arthur, 1601 Machesney Bldg., Pittsburg, Pa.
Northern Engineering Works, Detroit, Mich.
Union Iron Works, The, Hoboken, N. J.
Virginia Bridge & Iron Co., Roanoke, Va.
Whitehead & Kales Iron W'ks, Detroit, Mich.
Wiener Co., Ernst, 168 Morris Bldg., N. Y.
Wonham-Magor Engineering Works, 29 B'way, New York.

Turntables for Industrial Railways

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Turntables (Overhead)

Reading Crane & Hoist Works, Reading, Pa.

Twine (Jute)

American Mfg. Co., 65 Wall St., New York.

Twisted Steel

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.

Mention the "Record" when writing.

Douglas, Geo. B., 29 B'way, New York.
 General Fireproofing Co., The, Youngstown, O.
 Hough Co., William B., 1336-7 Monadnock
 Block, Chicago, Ill.
 Hudson Structural Steel Co., 136th St. and
 Southern Boulevard, New York.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 Maxwell Concrete Steel Co., 516 Penobscot
 Bldg., Detroit, Mich.
 Portland Iron & Steel Co., Board of Trade
 Bldg., Boston, Mass.
 Ransome Concrete Machinery Co., Dunellen,
 N. J.
 Rodgers Co., The, Monadnock Block, Chicago.
 Rogers-Shear Co., The, Warren, Pa.

Valve Boxes

Coffin Valve Co., Boston, Mass.

Valves

Scully Steel & Iron Co., Chicago, Ill.

Valves (Air)

American District Steam Co., Lockport, N. Y.
 American Injector Co., Congress and 7th Sts.,
 Detroit, Mich.
 American Well Works, Aurora, Ill.
 Chapman Valve Mfg. Co., Indian Orchard,
 Mass.
 Clow & Sons, James B., Chicago, Ill.
 Coffin Valve Co., Boston, Mass.
 Ingersoll-Rand Co., 11 B'way, New York.
 Merritt & Co., 1015 Ridge Ave., Phila., Pa.
 Simplex Valve & Meter Co., 112 N. Broad St.,
 Philadelphia, Pa.
 U. S. Wind Engine & Pump Co., 280 Water
 St., Batavia, Ill.

Valves (Blow-Off)

Chapman Valve Mfg. Co., Indian Orchard,
 Mass.

Valves (Butterfly)

Coffin Valve Co., Boston, Mass.

Valves (Check)

American District Steam Co., Lockport, N. Y.
 American Injector Co., Congress and 7th Sts.,
 Detroit, Mich.
 American Well Works, Aurora, Ill.
 Chapman Valve Mfg. Co., Indian Orchard,
 Mass.
 Clow & Sons, James B., Chicago, Ill.
 Coffin Valve Co., Boston, Mass.
 Coldwell-Wilcox Co., Newburgh, N. Y.
 Deming Co., The, Salem, Ohio.
 Douglas, W. & B., Middletown, Conn.
 Lunkenheimer Co., Cincinnati, Ohio.
 Manning, Maxwell & Moore, 85-87 Liberty St.,
 New York.
 Powell Co., Wm., Cincinnati, Ohio.

Mention the "Record" when writing.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Watson-Stillman Co., The, 26 Cortlandt St., New York.

Wetherill Bros. Machine Co., Chester, Pa.

Wood & Co., R. D., 400 Chestnut St., Phila.

Valves (Foot)

American District Steam Co., Lockport, N. Y.

American Injector Co., Congress and 7th Sts., Detroit, Mich.

American Well Works, Aurora, Ill.

Clow & Sons, James B., Chicago, Ill.

Coffin Valve Co., Boston, Mass.

Dayton Hydraulic Machinery Co., Dayton, O.

Deming Co., The, Salem, Ohio.

Douglas, W. & B., Middletown, Conn.

Emerson Steam Pump Co., The, Alexandria, Va.

Lawrence Machine Co., Lawrence, Mass.

Morris Machine Works, Baldwinsville, N. Y.

Perrin, Seamans & Co., 57 Oliver St., Boston.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Wood & Co., R. D., 400 Chestnut St., Phila.

Valves (Gate)

American District Steam Co., Lockport, N. Y.

American Injector Co., Congress and 7th Sts., Detroit, Mich.

American Well Works, Aurora, Ill.

Chapman Valve Mfg. Co., Indian Orchard, Mass.

Clow & Sons, James B., Chicago, Ill.

Coffin Valve Co., Boston, Mass.

Coldwell-Wilcox Co., Newburgh, N. Y.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Powell Co., Wm., Cincinnati, Ohio.

U. S. Cast Iron Pipe & Foundry Co., 71 B'way, New York.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Wood & Co., R. D., 400 Chestnut St., Phila.

Valves (Globe and Angle)

American District Steam Co., Lockport, N. Y.

American Injector Co., Congress and 7th Sts., Detroit, Mich.

American Well Works, Aurora, Ill.

Chapman Valve Mfg. Co., Indian Orchard, Mass.

Chicago House Wrecking Co., W. 35th and Iron Sts., Chicago, Ill.

Clow & Sons, James B., Chicago, Ill.

Coffin Valve Co., Boston, Mass.

Coldwell-Wilcox Co., Newburgh, N. Y.

Lombard Iron Works & Supply Co., Augusta, Ga.

Manning, Maxwell & Moore, 85-89 Liberty St., New York.

Powell Co., Wm., Cincinnati, Ohio.

Mention the "Record" when writing.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Watson-Stillman Co., The, 26 Cortlandt St., New York.

Valves (High-Pressure)

American District Steam Co., Lockport, N. Y.
Chapman Valve Mfg. Co., Indian Orchard, Mass.

Clow & Sons, James B., Chicago, Ill.

Coffin Valve Co., Boston, Mass.

Manning, Maxwell & Moore, 85-89 Liberty St., New York.

Powell Co., Wm., Cincinnati, Ohio.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Watson-Stillman Co., The, 26 Cortlandt St., New York.

Wood & Co., R. D., 400 Chestnut St., Phila.

Valves (Pump)

American Well Works, Aurora, Ill.

Deming Co., The, Salem, Ohio.

Douglas, W. & B., Middletown, Conn.

Watson-Stillman Co., The, 26 Cortlandt St., New York.

Valves (Regulating)

Simplex Valve & Meter Co., 112 N. Broad St., Philadelphia, Pa.

Valves (Safety)

Ashton Valve Co., The, Boston, Mass.

Clow & Sons, James B., Chicago, Ill.

Lunkenheimer Co., Cincinnati, Ohio.

Manning, Maxwell & Moore, 85-89 Liberty St., New York.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Powell Co., Wm., Cincinnati, Ohio.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Watson-Stillman Co., The, 26 Cortlandt St., New York.

Valves (Sewerage)

Coffin Valve Co., Boston, Mass.

Valves (Steam)

American District Steam Co., Lockport, N. Y.

American Injector Co., Congress and 7th Sts., Detroit, Mich.

Chapman Valve Mfg. Co., Indian Orchard, Mass.

Clow & Sons, James B., Chicago, Ill.

Coffin Valve Co., Boston, Mass.

Coldwell-Wilcox Co., Newburgh, N. Y.

Lunkenheimer Co., Cincinnati, Ohio.

Manning, Maxwell & Moore, 85-89 Liberty St., New York.

Powell Co., Wm., Cincinnati, Ohio.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Walworth Mfg. Co., Boston, Mass.

Mention the "Record" when writing.

Valves (Throttle)

Powell Co., Wm., Cincinnati, Ohio.

Valves (Tubular)

American Well Works, Aurora, Ill.

Valves (Water)

American Injector Co., Congress and 7th Sts., Detroit, Mich.

American Well Works, Aurora, Ill.

Chapman Valve Mfg. Co., Indian Orchard, Mass.

Clow & Sons, James B., Chicago, Ill.

Coffin Valve Co., Boston, Mass.

Coldwell, Wilcox Co., Newburgh, N. Y.

Dimmick Pipe Co., Birmingham, Ala.

Fox & Co., John, 253 B'way, New York.

Lunkenheimer Co., Cincinnati, Ohio.

Manning, Maxwell & Moore, 85-89 Liberty St., New York.

National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.

Norwood Engineering Co., Florence, Mass.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Walworth Mfg. Co., Boston, Mass.

Watson-Stillman Co., The, 26 Cortlandt St., New York.

Wood Co., R. D., 400 Chestnut St., Phila., Pa.

Valves (Water Relief)

Ashton Valve Co., The, Boston, Mass.

Clow & Sons, James B., Chicago, Ill.

Lunkenheimer Co., Cincinnati, Ohio.

Manning, Maxwell & Moore, 85-89 Liberty St., New York.

Powell Co., Wm., Cincinnati, Ohio.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Wood & Co., R. D., 400 Chestnut St., Phila.

Vases (Iron Reservoir)

Stewart Iron Works Co., The, Cincinnati, O.

Vault and Sidewalk Lights

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Vault Light Construction

Belmont Iron Works, 22d St. and Washington Ave., Philadelphia, Pa.

Berger Mfg. Co., The, Canton, Ohio.

Ventilating Apparatus

American Blower Co., Detroit, Mich.

American Skylight & Iron Works, 221 Randolph Ave., Jersey City, N. J.

Drouvé Co., G., Bridgeport, Conn.

Green Fuel Economizer Co., Matteawan, N. Y.

Lupton's Sons Co., David, Philadelphia, Pa.

Mention the "Record" when writing.

New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.

Ventilating Apparatus (Sash Operating)

Badger Ventilator Co., Boston, Mass.
Lord & Burnham Co., Irvington-on-Hudson,
N. Y.

Ventilating Machinery (Sash Operating)

Hitchings & Co., 1170 B'way, New York.

Ventilating Ridging

Atlas Roofing Co., 115-117 Clark St., Newburgh,
N. Y.

Ventilators

American Skylight & Iron Works, 221 Randolph Ave., Jersey City, N. J.
Badger Ventilator Co., Boston, Mass.
Badger & Sons Co., E. B., 63-75 Pitt St., Boston, Mass.
Bayer, J. C., Front and Market Sts., Portland, Ore.
Berger Mfg. Co., The, Canton, Ohio.
Burt Mfg. Co., Akron, Ohio.
Clow & Sons, James B., Chicago, Ill.
Drouvé Co., G., Bridgeport, Conn.
International Electric & Engineering Co., 148 Chambers St., New York.
Irwin Mfg. Co., Thos. W., Rebecca and Craig Sts., North Side, Pittsburg, Pa.
Lupton's Sons Co., David, Philadelphia, Pa.
Mesker & Bro., 421 S. 6th St., St. Louis, Mo.
Mullins Co., W. H., 342 Franklin St., Salem, O.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Van Noorden Co., E., 950 Mass. Ave., Boston.

Vises

Scully Steel & Iron Co., Chicago, Ill.

Wagon Forgings and Whiffletrees

Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.

Wagon Loaders

Indiana Road Machine Co., Fort Wayne, Ind.

Wagons (Asphalt)

Graver Tank Works, Wm., E. Chicago, Ind.

Wagons (Contractors')

Avery Mfg. Co., Peoria, Ill.
Black Mfg. Co., 124-128 E. Ohio St., Chicago.
Climax Road Machine Co., Marathon, N. Y.
Columbia Wagon Co., Columbia, Pa.
Contractors Supply & Equipment Co., 305 Old Colony Bldg., Chicago, Ill.
Glen Wagon Co., 40-50 Oak St., Seneca Falls, N. Y.
Hough Co., William B., 1336-7 Monadnock Block, Chicago, Ill.

Mention the "Record" when writing.

Indiana Road Machine Co., Fort Wayne, Ind.
Koppel Co., Arthur, 1601 Machesney Bldg.,
Pittsburg, Pa.
McCoy Co., Henry J., 65-67 Dey St., N. Y.
Perrin, Seamans & Co., 57 Oliver St., Boston.
Pittsburg Tubular Steel Whiffletree Co., Pitts-
burg, Pa.
Shaw Co., Willis, 171 La Salle St., Chicago, Ill.
Studebaker Bros. Mfg. Co., South Bend, Ind.
Troy Wagon Works Co., The, Troy, Ohio.
Watson Wagon Co., Canastota, N. Y.

Wagons (Dumping)

Bergen Point Iron Works, 149 B'way, N. Y.
Eagle Wagon Works, The, Auburn, N. Y.
Watson Wagon Co., Canastota, N. Y.

Wagons (Farm)

Studebaker Bros. Mfg. Co., South Bend, Ind.

Wagons (Garbage)

Studebaker Bros. Mfg. Co., South Bend, Ind.

Wagons (Oil)

Graver Tank Works, Wm., E. Chicago, Ind.

Wagons (Tar)

Graver Tank Works, Wm., E. Chicago, Ind.

Wall Coping (Salt-Glazed)

Patton Clay Mfg. Co., Patton, Pa.

Wall Coping (Vitrified)

Robinson Clay Product Co. of New York,
Flatiron Bldg., New York.

Wall Coping (Vitrified Clay)

Patton Clay Mfg. Co., Patton, Pa.

Washers (Air)

New York Blower Co., Chicago, Ill.

Water Columns

Kalamazoo Railway Supply Co., Kalamazoo,
Mich.

Water Columns (Railway)

U. S. Wind Engine & Pump Co., 280 Water
St., Batavia, Ill.

Water Gates and Windlasses

Bacon, Earle C., Havemeyer Bldg., New York.

Water-Power Construction

Foundation Co., The, 115 B'way, New York.

Water-Power Plants and Equip- ment

Allis-Chalmers Co., Milwaukee, Wis.
American Spiral Pipe Works, 14th St. and
48th Ave., Chicago, Ill.
Coldwell-Wilcox Co., Newburgh, N. Y.
D'Olier Engineering Co., 121 S. 11th St., Phila.
Excelsior Wooden Pipe Co., St. Paul Bldg.,
New York.
Lombard Iron Works & Supply Co., Augusta,
Ga.

Mention the "Record" when writing.

National Water Main Cleaning Co., 27 William St., New York.

National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.

Smith Co., S. Morgan, York, Pa.

Struthers-Wells Co., Warren, Pa.

Waterproofing

Bayer, J. C., Front and Market Sts., Portland, Ore.

Dow & Smith, 24-26 E. 21st St., New York.

Elaterite Paint & Mfg. Co., Des Moines, Ia.

Hydrex Felt & Engineering Co., 120 Liberty St., New York.

Johns-Manville Co., H. W., 100 Wm. St., N. Y.

Koch & Co., Theodore F., 79 Dearborn St., Chicago, Ill.

Miller & Co., Clifford L., 110 E. 23d St., N. Y.

Sicilian Asphalt Paving Co., The, 41 Park Row, New York.

Standard Asphalt & Rubber Co., 944 First Nat'l Bank Bldg., Chicago, Ill.

Texas Co., The, 17 Battery Place, New York.

Warner Co., Charles, Wilmington, Del.

Warren-Ehret Co., 1204 Land Title Bldg., Phila., Pa.

Winslow Co., E. J., 138 Jackson Boulevard, Chicago, Ill.

Waterproofing Compounds

Bayer, J. C., Front and Market Sts., Portland, Ore.

Elaterite Paint & Mfg. Co., Des Moines, Ia.

Hydrex Felt & Engineering Co., 120 Liberty St., New York.

Johns-Manville Co., H. W., 100 Wm. St., N. Y.

Miller & Co., Clifford L., 110 E. 23d St., N. Y.

Standard Asphalt & Rubber Co., 944 First National Bank Bldg., Chicago, Ill.

Texas Co., The, 17 Battery Place, New York.

Water Screens

Coffin Valve Co., Boston, Mass.

Water Softeners

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

Graver Tank Works, Wm., E. Chicago, Ind.

New York Cont. Jewell Filter Co., 15 Broad St., New York.

Pittsburg Filter Mfg. Co., Farmers Bank Bldg., Pittsburg, Pa.

Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Water Storage

Graver Tank Works, Wm., E. Chicago, Ind.

Water Supply Systems

Presler Prospecting & Engineering Co., Cincinnati, Ohio.

Mention the "Record" when writing.

Water Tanks (Steel)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Water Tanks (Wood)

Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Water Well Driving

Preslar Prospecting & Engineering Co., Cincinnati, Ohio.

Waterworks (Air Pressure)

Abenague Machine Works, Westminster Station, Vt.

American Well Works, Aurora, Ill.

Douglas, W. & B., Middletown, Conn.

Preslar Prospecting & Engineering Co., Cincinnati, Ohio.

U. S. Cast Iron Pipe & Foundry Co., 71 B'way, New York.

Waterworks Construction

Foundation Co., The, 115 B'way, New York.

Waterworks Goods

Coldwell-Wilcox Co., Newburgh, N. Y.

Edson Mfg. Co., 255-257 Atlantic Ave., Boston.

Excelsior Wooden Pipe Co., St. Paul Bldg., New York.

Leadite Co. of America, 1215 Filbert St., Phila.

National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.

Pittsburg Filter Mfg. Co., Farmers Bank Bldg., Pittsburg, Pa.

Simplex Valve & Meter Co., 112 N. Broad St., Philadelphia, Pa.

Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Waterworks Goods (Cars)

Youngstown Car Mfg. Co., The, Youngstown, Ohio.

Waterworks Goods—Pipe (Wood)

American District Steam Co., Lockport, N. Y.

American Well Works, Aurora, Ill.

Chicago Bridge & Iron Works, Washington Heights Station, Chicago, Ill.

Weighing Machinery

Osgood Scale Co., Binghamton, N. Y.

Richardson Scale Co., 3 Park Row, N. Y.

Welding (Electric)

Goff, Horner & Co., "Ltd.," Frick Bldg., Pittsburg, Pa.

Welding Sets

C. & C. Electric Co., The, Garwood, N. J.

Well-Drilling Machinery

American Test Boring & Drilling Co., 32 B'way, New York.

Mention the "Record" when writing.

American Well Works, Aurora, Ill.
 Artesian Well & Supply Co., Dyer and Friend-
 ship Sts., Providence, R. I.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Chandler, Geo. M., 42-9 N. Illinois St., In-
 dianapolis, Ind.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.
 Dean Bros. Steam Pump Works, Indianapo-
 lis, Ind.
 Douglas, W. & B., Middletown, Conn.
 Keystone Driller Co., Beaver Falls, Pa.
 Pittsburg Tubular Steel Whiffletree Co., Pitts-
 burg, Pa.
 Presler Prospecting & Engineering Co., Cin-
 cinnati, Ohio.
 Union Steam Pump Co., Battle Creek, Mich.
 U. S. Wind Engine & Pump Co., 280 Water
 St., Batavia, Ill.

Wheelbarrows

Bergen Point Iron Works, 149 B'way, N. Y.
 Chicago Concrete Machinery Co., 20 S. Canal
 St., Chicago, Ill.
 Contractors Supply & Equipment Co., 305 Old
 Colony Bldg., Chicago, Ill.
 Koehring Machine Co., Milwaukee, Wis.
 Lombard Iron Works & Supply Co., Augusta,
 Ga.
 McCoy Co., Henry J., 65-67 Dey St., N. Y.
 Perrin, Seamans & Co., 57 Oliver St., Boston.
 Ransome Concrete Machinery Co., Dunellen,
 N. J.
 Sterling Wheelbarrow Co., Milwaukee, Wis.
 Stuebner Iron Works, G. L., foot of 12th St.,
 Long Island City, N. Y.
 Union Iron Works, The, Hoboken, N. J.

Wheels (Car)

Chandler, Geo. M., 42-9 N. Illinois St., In-
 dianapolis, Ind.
 Douglas, Geo. B., 29 B'way, New York.
 Hough Co., William B., 1336-7 Monadnock
 Block, Chicago, Ill.
 Kalamazoo Railway Supply Co., Kalamazoo,
 Mich.
 Koppel Co., Arthur, 1601 Machesney Bldg.,
 Pittsburg, Pa.
 Lombard Iron Works & Supply Co., Augusta,
 Ga.
 Prosser & Sons, Thos. ("Krupp"), 15 Gold St.,
 New York.
 Union Iron Works, The, Hoboken, N. J.
 Wiener Co., Ernst, 168 Morris Bldg., N. Y.
 Youngstown Car Mfg. Co., Youngstown, O.

Wheels (Kalamazoo Pressed Steel)

Kalamazoo Railway Supply Co., Kalamazoo,
 Mich.

Mention the "Record" when writing.

Wheels (Sprockets)

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

White Portland Cement

Clow & Sons, James B., Chicago, Ill.

White Prints

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.

Winches

American Hoist & Derrick Co., St. Paul, Minn.
Bacon, Earle C., Havemeyer Bldg., N. Y.

Byers Machine Co., The, John F., Ravenna, O.

Carlin Machinery & Supply Co., "Inc.," 223 Sandusky St., North Side, Pittsburg, Pa.

Contractors Plant Mfg. Co., Buffalo, N. Y.

Dobbie Foundry & Mach. Co., Niagara Falls, N. Y.

Northern Engineering Works, Detroit, Mich.

Perrin, Seamans & Co., 57 Oliver St., Boston.

Whitehead & Kales Iron W'ks, Detroit, Mich.

Williamson Bros. Co., Aramingo Ave. and Cumberland St., Philadelphia, Pa.

Windmills

Baltimore Cooperage Co., Baltimore, Md.

Flint & Walling Mfg. Co., Kendallville, Ind.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Windmill Tanks

Baltimore Cooperage Co., Baltimore, Md.

Bayer, J. C., Front and Market Sts., Portland, Ore.

Flint & Walling Mfg. Co., Kendallville, Ind.

National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.

U. S. Wind Engine & Pump Co., 280 Water St., Batavia, Ill.

Window Frames and Sash (Fire-proof)

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.

Window Guards (Wire and Iron)

Darby & Sons Co., "Inc.," Edw., Phila., Pa.

Windows (Metal)

Bayer, J. C., Front and Market Sts., Portland, Ore.

Berger Mfg. Co., The, Canton, Ohio.

Lupton's Sons Co., David, Philadelphia, Pa.

Mesker & Bro., 421 S. 6th St., St. Louis, Mo.

Mullins Co., W. H., 342 Franklin St., Salem, O.

Van Noordén Co., E., 950 Mass. Ave., Boston.

Wire

American Steel & Wire Co., Commercial Nat'l Bank Bldg., Chicago, Ill.

General Electric Co., Schenectady, N. Y.

Mention the "Record" when writing.

Wire (Brass and Copper)

American Steel & Wire Co., Commercial Nat'l
Bank Bldg., Chicago, Ill.

Wire Cloth

Allis-Chalmers Co., Milwaukee, Wis.
Clinton Wire Cloth Co., Clinton, Mass.
Darby & Sons Co., "Inc.," Edw., Phila., Pa.
Scully Steel & Iron Co., Chicago, Ill.

Wire Fabric Reinforcing

American System of Reinforcing, 189 La Salle
St., Chicago, Ill.

Wire (Flat)

American Steel & Wire Co., Commercial Nat'l
Bank Bldg., Chicago, Ill.

Wire (Insulated—All Kinds)

American Steel & Wire Co., Commercial Nat'l
Bank Bldg., Chicago, Ill.
General Electric Co., Schenectady, N. Y.

**Wire (Iron and Steel, Market,
Fence, Stone, Etc.)**

American Steel & Wire Co., Commercial Nat'l
Bank Bldg., Chicago, Ill.

Wire Rope

Perrin, Seamans & Co., 57 Oliver St., Boston.

**Wire Rope and Aerial Tramways
(See Cableways)**

Broderick & Bascom Rope Co., St. Louis, Mo.
Contractors Supply & Equipment Co., 305 Old
Colony Bldg., Chicago, Ill.
International Electric & Engineering Co., 148
Chambers St., New York.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lombard Iron Works & Supply Co., Augusta,
Ga.
New York Cableway & Engineering Co., 2
Rector St., New York.
Roebbling's Sons Co., John A., Trenton, N. J.
Youngstown Car Mfg. Co., Youngstown, O.

Wire Rope (Flattened Strand)

Leschen & Sons Rope Co., A., St. Louis, Mo.

Wire Rope (Hercules)

Leschen & Sons Rope Co., A., St. Louis, Mo.

Wire (Rubber Insulated)

American Steel & Wire Co., Commercial Nat'l
Bank Bldg., Chicago, Ill.
International Electric & Engineering Co., 148
Chambers St., New York.
Roebbling's Sons Co., John A., Trenton, N. J.

Wires (Strand, Guy, Galvanized)

American Steel & Wire Co., Commercial Nat'l
Bank Bldg., Chicago, Ill.

Wood Block Paving

American Creosoting Co., 29 B'way, N. Y.

Mention the "Record" when writing.

Wood Pipe

National Wood Pipe Co., 404 Equitable Bank Bldg., Los Angeles, Cal.

Wood Preserver

American Creosoting Co., 29 B'way, N. Y.

Barber Asphalt Paving Co., Maurer, N. J.

Carboleneum Wood Preserving Co., 60 Wall St., New York.

Elaterite Paint & Mfg. Co., Des Moines, Ia.

Grosche & Co., Bruno, 23 Jones Lane, N. Y.

Gulfport Creosoting Co., Gulfport, Miss.

McKinney Co., C. S., 60 Wall St., N. Y.

Michigan Pipe Co., The, Bay City, Mich.

Wrenches

American District Steam Co., Lockport, N. Y.

Clow & Sons, James B., Chicago, Ill.

Patterson Co., W. W., Pittsburg, Pa.

Scully Steel & Iron Co., Chicago, Ill.

Wiebusch & Hilger, "Ltd.," 9 Murray St., New York.

Williams & Co., J. H., Brooklyn, N. Y.

Yarn (Cement)

American Mfg. Co., 65 Wall St., New York.

Directory

of Manufacturers of and Dealers in

Engineers and Contractors Machinery and Supplies

A Classified List of Machinery and
Supplies manufactured or sold by adver-
tisers in the Sixth Annual Contractors'
Number of The Engineering Record.

Copyright, 1909, by
McGraw Publishing Company

Published by
The Engineering Record
239 West 39th Street
New York

Chicago
Philadelphia

Cleveland
London

620
E-3
1909

ANNOUNCEMENT.

The second edition of this Directory is offered to the subscribers and readers of The Engineering Record in the belief that they will find it of considerably greater convenience and value than the first edition in view of its enlarged form, materially increased number of headings, improved both in accuracy and comprehensiveness, coupled with the numerous cross-reference headings which have been added.

No claim is made that it is a complete directory of the trade, for the names listed therein are limited to those whose advertisements appeared in the Sixth Annual Contractors' Number of The Engineering Record dated April 3, 1909.

This Directory is believed to be the only one published comprised exclusively of manufacturers of, and dealers in, machinery and supplies for engineers' and contractors' use.

The edition printed is 20,250 copies, distributed among the regular subscribers to The Engineering Record, and to an additional special list of engineers and contractors who received copies of the 1909 contractors' number of the paper.

From its first number printed, thirty years ago, The Engineering Record has covered thoroughly every branch of civil engineering—the fabrication and erection of steel bridges and skyscrapers, reinforced concrete construction of the modern mill and factory, mill architecture, irrigation, reclamation, docks, dredging, foundations, waterworks, sewerage, railroad building, road building, and the mechanical equipment of large industrial plants, hotels and office buildings.

In the year ending May 31, 1909, 760,250 copies of The Engineering Record, over 14,600 copies per week, were circulated among consulting engineers and contractors, mill architects, city, county and state engineers, bridge and structural engineers, waterworks superintendents, chief engineers of railroads and industrial plants all over the world.

The specifications and actual purchases of these men involve the expenditure of millions of dollars annually for apparatus, equipment and supplies, and they read the advertising pages of The Engineering Record for the broad and comprehensive knowledge they afford of the manufactured products required for their work.

A CLASSIFIED LIST OF ENGINEERS AND CONTRACTORS MACHINERY AND SUPPLIES

Air Compressors

Abenague Machine Works, Westminster Sta., Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Air Compressor Works, 26 Cortlandt St., N. Y.
 American Well Works, Aurora, Ill.
 Artesian Well & Supply Co., Banigan Bldg., Providence,
 R. I.
 Blaisdell Machinery Co., Bradford, Pa.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Cole Mfg. Co., R. D., Newnan, Ga.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Fairbanks Co., Broome and Lafayette Sts., New York.
 General Electric Co., Schenectady, N. Y.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Independent Pneumatic Tool Co., Thor Bldg., Chicago.
 Ingersoll-Rand Co., 11 Broadway, New York.
 International Steam Pump Co., 115 B'way, New York.
 Inter-State Equipment & Engineering Co., 305 Old Colony
 Bldg., Chicago, Ill.
 Knowles Steam Pump Works, 115 B'way, New York.
 Laidlaw-Dunn-Gordon Co., 115 B'way, New York.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 Mietz, August, 128 Mott St., New York.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Northern Engineering Works, Detroit, Mich.
 Norwalk Iron Works, So. Norwalk, Conn.
 Scully Steel & Iron Co., Chicago, Ill.
 Sullivan Machinery Co., Railway Exch., Chicago, Ill.
 Union Steam Pump Co., Battle Creek, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago,
 Ill.
 Wisconsin Engine Co., Corliss, Wis.
 York Mfg. Co., York, Pa.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Air Hose and Couplings

Abenague Machine Works, Westminster Sta., Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
 Hardsocg Co., Martin, Allegheny, Pa.
 Independent Pneumatic Tool Co., Thor Bldg., Chicago.
 Ingersoll-Rand Co., 11 Broadway, New York.
 Inter-State Equipment & Engineering Co., 305 Old Colony
 Bldg., Chicago, Ill.
 Scully Steel & Iron Co., Chicago, Ill.
 Sullivan Machinery Co., Railway Exch., Chicago, Ill.

Air Lift Pumping Machinery

Abenague Machine Works, Westminster Sta., Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Air Compressor Works, 26 Cortlandt St., N. Y.
 American Well Works, Aurora, Ill.
 Blaisdell Machinery Co., Bradford, Pa.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Goulds Mfg. Co., Seneca Falls, N. Y.

Mention "The Engineering Record" when writing.

Ingersoll-Rand Co., 11 Broadway, N. Y.
Norwalk Iron Works, So. Norwalk, Conn.
Phillips & Worthington, 90 West St., New York.
Prescott, Fred M., Steam Pump Co., Milwaukee, Wis.
Sullivan Machinery Co., Railway Exch., Chicago, Ill.
Sweeney & Gray, 81 Sixth St., Long Island City, N. Y.
Union Steam Pump Co., Battle Creek, Mich.

Air Valves (Automatic)

Allis-Chalmers Co., Milwaukee, Wis.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
Jenkins Bros., 71 John St., New York.
National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
Powell Co., Wm., 2525 Spring Grove Ave., Cincinnati, Ohio.
Simplex Valve & Meter Co., 112 N. Broad St., Philadelphia, Pa.
Water Works Equipment Co., 50 Church St., New York.

Alloys

Goldschmidt Thermit Co., 90 West St., New York.

Aluminum

Archer Iron Works, Inc., 34th Pl. & Western Ave., Chicago, Ill.
Davis-Bournonville Co., 88 West St., New York.
Janney, Steinmetz & Co., Philadelphia, Pa.

Aluminum Solder

Davis-Bournonville Co., 88 West St., New York.
Janney, Steinmetz & Co., Philadelphia, Pa.

Angles (See Structural Steel)

Anvils

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome and Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Scully Steel & Iron Co., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Architects' Supplies

American Drafting Furniture Co., Rochester, N. Y.
Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Berger, C. L., & Sons, 37 Williams St., Boston, Mass.
Carbolineum Wood Preserving Co., 349 W. B'way, N. Y.
Concrete Steel Engineering Co., Park Row Bldg., N. Y.
Fritz Mfg. Co., Grand Rapids, Mich.
Glidden Varnish Co., Cleveland, Ohio.
Hanna Mfg. Co., Troy, N. Y.
Iszard-Warren Co., Inc., 1122 Vine St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Lufkin Rule Co., Saginaw, Mich.
Mittineague Paper Co., Mittineague, Mass.
Steel Protected Concrete Co., Real Estate Trust Bldg., Philadelphia, Pa.

Architectural and Ornamental Iron Works (See Iron Work, Architectural and Ornamental)

Artesian Well Contractors

Artesian Well & Supply Co., Banigan Bldg., Providence, R. I.
Phillips & Worthington, 90 West St., New York.
Sweeney & Gray, 81 Sixth St., Long Island City, N. Y.

Mention "The Engineering Record" when writing.

Artesian Wells, Tool and Pumps (See Well-Drilling Machinery)

Artists' Materials

American Drafting Furniture Co., Rochester, N. Y.
Fritz Mfg. Co., Grand Rapids, Mich.
Mittineague Paper Co., Mittineague, Mass.

Asbestos and Asbestos Products

Asbestos Protected Metal Co., Canton, Mass.
Johns-Manville Co., H. W., 100 William St., New York.
U. S. Fireproofing Co., 4 E. 31st St., New York.

Asphalt

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.
Barber Asphalt Co., A. L., 90 West St., New York.
Barber Asphalt Paving Co., Maurer, N. J.
Barber Asphalt Paving Co., Land Title Bldg., Philadelphia, Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Knickerbocker Chemical Co., 24-26 Stone St., New York.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
Standard Asphalt & Rubber Co., 205 La Salle St., Chicago, Ill.
Standard Oil Co., 26 Broadway, New York.
Texas Co., 17 Battery Pl., New York.
Wadsworth Stone & Paving Co., Bessmer Bldg., Pittsburg, Pa.

Asphalt Paving

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.
Barber Asphalt Co., A. L., 90 West St., New York.
Barber Asphalt Paving Co., Maurer, N. J.
Barber Asphalt Paving Co., Land Title Bldg., Philadelphia, Pa.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Wadsworth Stone & Paving Co., Bessmer Bldg., Pittsburg, Pa.

Asphalt Plants and Tools

Barber Asphalt Paving Co., Maurer, N. J.
Barber Asphalt Paving Co., Land Title Bldg., Philadelphia, Pa.
Barron, Jas. S., 133 Franklin St., New York.
Buffalo Steam Roller Co., Buffalo, N. Y.
Cummer & Son Co., F. D., Cleveland, Ohio.
Drake Standard Machine Works, 298 W. Jackson Blvd., Chicago, Ill.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Knickerbocker Chemical Co., 24-26 Stone St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
McCoy Co., Henry J., 67 Dey St., New York.
Ruggles-Coles Engineering Co., 39 Cortlandt St., N. Y.
Union Iron Works, Hoboken, N. J.
Williams Pat. Crusher & Pulverizer Co., Old Colony Bldg., Chicago, Ill.

Attorneys

King, George A. and William B., Washington, D. C.

Ball Mills

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Power & Mining Machinery Co., Cudahy, Wis.
Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.

Mention "The Engineering Record" when writing.

Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.

Smidth & Co., F. L., 50 Church St., New York.

Traylor Engineering Co., Allentown, Pa.

Ballast Spreaders

Marsh Co., 970 Old Colony Bldg., Chicago, Ill.

United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Ballast Unloaders

Bucyrus Co., So. Milwaukee, Wis.

Channon Co., H., Market & Randolph Sts., Chicago, Ill.

Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.

Leschen & Sons Rope Co., A., St. Louis, Mo.

Lidgerwood Mfg. Co., 96 Liberty St., New York.

Marion Steam Shovel Co., Marion, Ohio.

Marsh Co., 970 Old Colony Bldg., Chicago, Ill.

United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Banks

Coal & Iron National Bank, 143 Liberty St., New York.

Barges

Pennsylvania Contracting Co., Publication Bldg, Pittsburgh, Pa.

Bars, Grate (See Grate Bars)

Bars (Steel)

American Bridge Co. of N. Y., 30 Church St., New York.

American System of Reinforcing, 189 La Salle St., Chicago, Ill.

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.

Buffalo Steel Co., Tonawanda, N. Y.

Calumet Steel Co., Com'l Nat'l Bank Bldg., Chicago, Ill.

Carnegie Steel Co., Pittsburgh, Pa.

Climax Road Machine Co., Marathon, N. Y.

Collins Co., W. A., First Nat'l Bank Bldg., Chicago, Ill.

Concrete Steel Co., 29 Broadway, New York.

Concrete Steel Engineering Co., Park Row Bldg., N. Y.

Corrugated Bar Co., St. Louis, Mo.

Decatur Bridge Co., Decatur, Ill.

Douglas, Geo. B., 29 Broadway, New York.

Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.

Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.

Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.

Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

Lackawanna Steel Co., 2 Rector St., New York.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.

Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.

Portland Iron & Steel Co., 1009 Board of Trade Bldg., Boston, Mass.

Rogers-Shear Co., Warren, Pa.

Scully Steel & Iron Co., Chicago, Ill.

Steel Protected Concrete Co., Real Estate Trust Bldg., Philadelphia, Pa.

Trussed Concrete Steel Co., Trussed Concrete Bldg., Detroit, Mich.

Virginia Steel Bridge & Iron Co., Roanoke, Va.

Whitehead & Kales Iron Works, Detroit, Mich.

Beams (See Structural Steel)

Mention "The Engineering Record" when writing.

Bearing Metals

Lubricating Metal Co., 156 B'way, New York.

Bearings, Ball and Roller

Allis-Chalmers Co., Milwaukee, Wis.
Fairbanks Co., Broom & Lafayette Sts., New York.
Koppel Co., Arthur, Pittsburg, Pa.
Traylor Engineering Co., Allentown, Pa.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Wiener Co., Ernst, Fulton and Church Sts., New York.
Wonham, Magor Car & Mfg., 30 Church St., N. Y.

Bearings, Oilers and Self-Oiling

Allis-Chalmers Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave. & W. 17th St.,
Philadelphia, Pa.
Fairbanks Co., Broome and Lafayette Sts., New York.
Smith Co., S. Morgan, York, Pa.
Traylor Engineering Co., Allentown, Pa.
Wiener Co., Ernst, Fulton and Church Sts., N. Y.

Bellows

Farwell, Ozmun, Kirk & Co., St. Paul, Minn.

Belt Dressing

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conveying Weigher Co., 92 West St., New York.
Dixon Crucible Co., Joseph, Jersey City, N. J.

Belt Tighteners

Allis-Chalmers Co., Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave. & W. 17th St.,
Philadelphia, Pa.
Fairbanks Co., Broome and Lafayette Sts., New York.
National Belting Co., Lawrence, Mass.
Traylor Engineering Co., Allentown, Pa.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Belting, Chain, Link, Canvas, Etc.

Allis-Chalmers Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., Broom & Lafayette Sts., New York.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
National Belting Co., Lawrence, Mass.
Peerless V-Belt Co., 215 S. Clinton St., Chicago.
Robins Conveying Belt Co., Passaic, N. J.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Benders (Rail)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome and Lafayette Sts., New York.
Hardsocg Co., Martin, Allegheny, Pa.
Indianapolis Switch & Frog Co., Springfield, Ohio.
McCoy Co., Henry J., 67 Dey St., New York.
Scully Steel & Iron Co., Chicago, Ill.
Union Iron Works, Hoboken, N. J.
Watson-Stillman Co., 50 Church St., New York.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Bending, Straightening and Punching Machines

Allis-Chalmers Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Dudgeon, Richard, 24 Columbia St., New York.
Fairbanks Co., Broom & Lafayette Sts., New York.
Hanson & Son, A. P., 106 W. Adams St., Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Pittsburg Mfg. Co., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.
Watson-Stillman Co., 50 Church St., New York.

Blacksmiths' Tools

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Lufkin Rule Co., Saginaw, Mich.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Blast Furnaces and Fittings

Allis-Chalmers Co., Milwaukee, Wis.
Archer Iron Works, Inc., 34th Pl. & Western Ave., Chicago, Ill.
Carroll-Porter Boiler & Tank Co., Empire Bldg., Pittsburg, Pa.
Petroleum Iron Works, Sharon, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Traylor Engineering Co., Allentown, Pa.

Blast Hole Loaders

Du Pont de Nemours, E. I., Powder Co., Wilmington, Del.

Blasting Powder

Ætna Powder Co., 143 Dearborn St., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Du Pont de Nemours, E. I., Powder Co., Wilmington, Del.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
National Powder Co., 200 Fifth Ave., New York.

Blocks and Tackle

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Union Iron Works, Hoboken, N. J.

Blocks and Trolleys

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.

Mention "The Engineering Record" when writing.

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Northern Engineering Works, Detroit, Mich.
Union Iron Works, Hoboken, N. J.
Whitehead & Kales Iron Works, Detroit, Mich.

Blowers

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Dean Bros. Steam Pump Co., Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Fairbanks Co., Broome & Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
General Electric Co., Schenectady, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
New York Blower Co., Stewart Ave., Chicago, Ill.
Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Mass.

Blue Print Filing Cabinets

American Drafting Furniture Co., Rochester, N. Y.
Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Fritz Mfg. Co., Grand Rapids, Mich.
Kolesch & Co., 138 Fulton St., New York.

Blue Printing Machinery

American Drafting Furniture Co., Rochester, N. Y.
Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Buckeye Engine Co., Salem, Ohio
General Electric Co., Schenectady, N. Y.
Keuffel & Esser, Hoboken, N. J.
Kolesch & Co., 138 Fulton St., New York.
Williams, Brown & Earle, 913 Chestnut St., Philadelphia, Pa.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Boiler Fittings, Mountings and Tubes

American Injector Co., Detroit, Mich.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Lunkenheimer Co., Cincinnati, Ohio.
Powell Co., Wm., 2525 Spring Grove Ave., Cincinnati, Ohio.
Scully Steel & Iron Co., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Boiler Makers' Punching Machines

Buffalo Forge Co., Buffalo, N. Y.
Dudgeon, Richard, 24 Columbia St., New York.
Fairbanks Co., Broome & Lafayette Sts., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Scully Steel & Iron Co., Chicago, Ill.

Boiler Tubes

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.
Scully Steel & Iron Co., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Boilers (Heating)

American Radiator Co., 104 W. 42d St., New York.
Baldwin, William J., World Bldg., New York.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Gurney Heater Mfg. Co., 200 Franklin St., Boston, Mass.
Hitchings & Co., 1170 Broadway, New York
Lake Erie Engineering Works, Buffalo, N. Y.
Leffel & Co., James, Springfield, Ohio.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Wurdack Electric Mfg. Co., 19 S. 11th St., St. Louis, Mo.

Boilers (Hot Water, Copper)

American Radiator Co., 104 W. 42d St., New York.
Badger, E. B. & Sons Co., 63-75 Pitts St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.

Boilers (Tubular)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Carroll-Porter Boiler & Tank Co., Empire Bldg., Pittsburg, Pa.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Chicago House Wrecking Co., 35th & Iron Sts., Chicago.
Climax Road Machine Co., Marathon, N. Y.
Cole Mfg. Co., R. D., Newnan, Ga.
Conklin, H. O., Equipment Co., Harvey, Ill.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
Hobbs-Ives Equipment & Machinery Co., Seaboard Bank, Norfolk, Va.
Lake Erie Engineering Works, Buffalo, N. Y.
Leffel & Co., James, Springfield, Ohio.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Lombard Iron Works, Augusta, Ga.
Morris Co., I. P., Philadelphia, Pa.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Phoenix Iron Works Co., Meadville, Pa.
Ransome Concrete Machinery Co., Dunellen, N. J.
Tippett & Wood, Phillipsburg, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Vulcan Iron Works, Wilkes-Barre, Pa.
Walsh's Holyoke Steam Boiler W'ks, Holyoke, Mass.
York Mfg. Co., York, Pa.

Boilers (Water-Tube)

Babcock & Wilcox Co., 85 Liberty St., New York.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Chicago House Wrecking Co., 35th & Iron Sts., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Parker Boiler Co., Penna. Bldg., Philadelphia, Pa.
Traylor Engineering Co., Allentown, Pa.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Bolts

Baltimore Bridge Co., Baltimore, Md.
Berlin Construction Co., Berlin, Conn.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Decatur Bridge Co., Decatur, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Koppel Co., Arthur, Pittsburg, Pa.

Mention "The Engineering Record" when writing.

Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Portland Iron & Steel Co., 1009 Board of Trade Bldg.,
Boston, Mass.
Scully Steel & Iron Co., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Bolts (Expansion, Toggle), Etc.

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Johns-Manville Co., H. W., 100 William St., New York.
Star Expansion Bolt Co., 147 Cedar St., New York.
Wallace Hoist Sales Co., Ft. Wayne, Ind.

Bolts (Machine)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Scully Steel & Iron Co., Chicago, Ill.
Star Expansion Bolt Co., 147 Cedar St., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Bonds (Contractors')

Ætna Life Insurance Co., Hartford, Conn.
Ritch, William T., Inc., 1123 Broadway, New York.
Wallace Hoist Sales Co., Ft. Wayne, Ind.

Books (Engineering and Technical)

Ainsworth, Wm., & Sons, Denver, Col.
Architects & Engineers Supply Co., 1010 Grand Ave.,
Kansas City, Mo.
Audel & Co., Theo., 63 Fifth Ave., New York.
Baldwin William J., World Bldg., New York.
Christensen, G. A., P. O. Box 22, San Francisco, Cal.
Clark Pub. Co., Myron C., 353 Dearborn St., Chicago, Ill.
Engineers' Club (Phila.), 1122 Girard St., Phila., Pa.
Journal of Assoc. of Engr. Soc., 31 Milk St., Boston,
Mass.
Kolesch & Co., 138 Fulton St., New York.
McGraw Publishing Co., 239 W. 39th St., New York.
Technical Press Association, 51 rue Aurore, Brussels,
Belgium.
Wiley, John, & Sons, 43 E. 19th St., New York.

Boosters

General Electric Co., Schenectady, N. Y.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Boots

McCoy Co., Henry J., 67 Dey St., New York.
Rubberhide Co., 212 Essex St., Boston, Mass.

Boots (Elevator)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Burrell Mfg. Co., Bradley, Ill.
Chain Belt Co., Milwaukee, Wis.
Graver, Wm., Tank Works, East Chicago, Ind.
Traylor Engineering Co., Allentown, Pa.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Mention "The Engineering Record" when writing.

Borings, Test

American Well Works, Aurora, Ill.
Artesian Well & Supply Co., Banigan Bldg., Providence,
R. I.
Phillips & Worthington, 90 West St., New York.
Raymond Concrete Pile Co., 135 Adams St., Chicago, Ill.
Sullivan Mach'y. Co., Railway Exch., Chicago, Ill.
Sweeney & Gray, 81 Sixth St., Long Island City, N.Y.
Terry Core Drill Co., 50 Church St., New York.

Boxes (Dump)

Austin Mfg. Co., 307 Dearborn St., Chicago, Ill.
Eagle Wagon Works, Auburn, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Longenecker & Co., Chas., 150 Nassau St., New York.
Troy Wagon Works Co., So. Walnut St., Troy, Ohio.
Wiener Co., Ernst, Fulton & Church Sts., New York.

Boxes (Take-Up)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave. & W. 17th St.,
Philadelphia, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Braces (Extensible)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.
Star Expansion Bolt Co., 147 Cedar St., New York.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken,
N. J.

Brackets and Cross-Arms

Carbolineum Wood Preserving Co., 349 W. B'way, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Johns-Manville Co., H. W., 100 William St., New York.
Kratzer & Co., W. N. 3230 Smallman St., Pittsburg, Pa.
Wyckoff Pipe & Cresoting Co., Inc., 50 Church St., N. Y.

Brick and Tile

Besser Mfg. Co., Alpena, Mich.
Evens & Howard Fire Brick Co., St. Louis, Mo.
Fredenburg & Lounsbury, 289 Fourth Ave., New York.
McAvoy Vitified Brick Co., 345 Arch St., Philadelphia,
Pa.
National Paving Brick Mfg. Assoc., Board of Trade
Bldg., Indianapolis, Ind.
Patton Clay Mfg. Co., Patton, Cambria Co., Pa.
Peerless Brick Machine Co., 18 N. 6th St., Minneapolis,
Minn.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Warner Co., Chas., Wilmington, Del.

Brick (Building and Sewer)

Besser Mfg. Co., Alpena, Mich.
Fredenburg & Lounsbury, 289 Fourth Ave., New York.
Good, Geo. S., Fire Brick Co., Patton, Cambria Co., Pa.
Metropolitan Paving Brick Co., Canton, Ohio.
Patton Clay Mfg. Co., Patton, Cambria Co., Pa.
Warner Co., Chas., Wilmington, Del.

Brick Machinery

American Blower Co., Detroit, Mich.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Besser Mfg. Co., Alpena, Mich.

Mention "The Engineering Record" when writing.

Burrell Mfg. Co., Bradley, Ill.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.
 Climax Road Machine Co., Marathon, N. Y.
 Cresson Co., Geo. V., Allegheny Ave. & W. 17th St., Philadelphia, Pa.
 Drake Standard Machine Works, 298 W. Jackson Blvd., Chicago, Ill.
 Green Fuel Economizer Co., Matteawan, N. Y.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Peerless Brick Machine Co., 18 N. 6th St., Minneapolis, Minn.
 Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
 Ruggles-Coles Engineering Co., 39 Cortlandt St., N. Y.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Williams Pat. Crusher & Pulverizer Co., Old Colony Bldg., Chicago, Ill.

Brick (Paving)

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.
 Fredenburg & Lounsbury, 289 Fourth Ave., N. Y.
 Good, Geo. S., Fire Brick Co., Patton, Cambria Co., Pa.
 Metropolitan Paving Brick Co., Canton, Ohio.
 Patton Clay Mfg. Co., Patton, Cambria Co., Pa.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Warner Co., Chas., Wilmington, Del.

Bridge Builders

American Bridge Co. of N. Y., 30 Church St., N. Y.
 Baltimore Bridge Co., Baltimore, Md.
 Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
 Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
 Berlin Construction Co., Berlin, Conn.
 Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
 Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
 Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
 Burger Iron Co., Akron, Ohio.
 Canton Bridge Co., Canton, Ohio.
 Champion Bridge Co., Wilmington, Ohio.
 Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Clinton Bridge & Iron Works, Clinton, Iowa.
 Concrete Steel Engineering Co., Park Row Bldg., N. Y.
 Decatur Bridge Co., Decatur, Ill.
 Des Moines Bridge & Iron Co., Des Moines, Iowa.
 Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
 Pneumatic Caisson Co., National State Bank Bldg., Troy, N. Y.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
 Scherzer Rolling Lift Bridge Co., Monadnock Blk., Chicago, Ill.
 Terry & Tench Co., 131st St. & Lexington Ave., N. Y.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Warren Construction Co., Warren, Ohio.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wilkins, Grant, Atlanta, Ga.
 Wisconsin Bridge & Iron Co., N. Milwaukee, Wis.

Mention "The Engineering Record" when writing.

Bridge Engineers

American Concrete Caisson Co., National State Bank Bldg., Troy, N. Y.
Baltimore Bridge Co., Baltimore, Md.
Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
Burger Iron Co., Akron, Ohio.
Canton Bridge Co., Canton, Ohio.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Engineering Co., Park Row Bldg., N. Y.
Decatur Bridge Co., Decatur, Ill.
Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
King Bridge Co., Cleveland, Ohio.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
Ritter-Conley Mfg. Co., Pittsburg, Pa.
Riverside Bridge Co., Martin's Ferry, Ohio.
Scherzer Rolling Lift Bridge Co., Monadnock Blk., Chicago, Ill.
Virginia Bridge & Iron Co., Roanoke, Va.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Waddell & Harrington, New Nelson Bldg., Kansas City, Mo.
Watson & Co., Wilbur J., Citizens Bldg., Cleveland, O.
White & Co., J. G., Inc., 43 Exchange Pl., N. Y.
Wilkins, Grant, Atlanta, Ga.
Wisconsin Bridge & Iron Co., N. Milwaukee, Wis.

Bridge Operating Machinery

Allis-Chalmers Co., Milwaukee, Wis.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave. & W. 17th St., Philadelphia, Pa.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
King Bridge Co., Cleveland, Ohio.
Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Scherzer Rolling Lift Bridge Co., Monadnock Blk., Chicago, Ill.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
Wisconsin Bridge & Iron Co., N. Milwaukee, Wis.

Bridge, Pier and Building Foundations (See Contractors', General), (also Foundations)

Bridge Railings

Belmont Iron Works, 22d & Washington Aves., Philadelphia, Pa.
Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
Canton Bridge Co., Canton, Ohio.
Climax Road Machine Co., Marathon, N. Y.
Concrete Steel Engineering Co., Park Row Bldg., N. Y.
Decatur Bridge Co., Decatur, Ill.
Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Riverside Bridge Co., Martin's Ferry, Ohio.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Stewart Iron Works Co., Cincinnati, Ohio.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken, N. J.
Warren Construction Co., Warren, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.
Wisconsin Bridge & Iron Co., N. Milwaukee, Wis.

Mention "The Engineering Record" when writing.

Bridges (Bascule)

American Bridge Co. of N. Y., 30 Church St., N. Y.
Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
King Bridge Co., Cleveland, Ohio.
Penn Bridge Co., Beaver Falls, Pa.
Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scherzer Rolling Lift Bridge Co., Monadnock Blk., Chicago, Ill.
Snare & Triest Co., 143 Liberty St., New York.
Waddell & Harrington, New Nelson Bldg., Kansas City, Mo.
Wisconsin Bridge & Iron Co., N. Milwaukee, Wis.

Bridges (Concrete)

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
American Concrete Caisson Co., National State Bank Bldg., Troy, N. Y.
American Concrete Steel Co., Newark, N. J.
Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
Canton Bridge Co., Canton, Ohio.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Co., 29 Broadway, New York.
Concrete Steel Engineering Co., Park Row Bldg., N. Y.
Ferro Concrete Construction Co., Cincinnati, Ohio.
Freeborn Engineering & Construction Co., Scaritt Bldg., Kansas City, Mo.
Hennebique Construction Co., 1170 B'way, New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Pennsylvania Contracting Co., Publication Bldg., N. Y.
Pneumatic Caisson Co., Nat'l State Bank Bldg., Troy, N. Y.
Snare & Triest Co., 143 Liberty St., New York.
Trussed Concrete Steel Co., Trussed Concrete Bldg., Detroit, Mich.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Waddell & Harrington, New Nelson Bldg., Kansas City, Mo.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Wilkins, Grant, Atlanta, Ga.

Bridges, Roofs, Etc. (Steel)

American Bridge Co. of N. Y., 30 Church St., N. Y.
Baltimore Bridge Co., Baltimore, Md.
Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
Berlin Construction Co., Berlin, Conn.
Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
Burger Iron Co., Akron, Ohio.
Canton Bridge Co., Canton, Ohio.
Champion Bridge Co., Wilmington, Ohio.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Engineering Co., Park Row Bldg., N. Y.
Decatur Bridge Co., Decatur, Ill.
Dodge Co., J. M., Nicetown, Philadelphia, Pa.
Geisel Construction Co., 620 Chestnut St., St. Louis, Mo.
Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Mention "The Engineering Record" when writing.

Kenwood Bridge Co., First Nat'l Bank Bldg., Chicago, Ill.
 King Bridge Co., Cleveland, Ohio.
 Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
 Memphis Bridge Co., Memphis, Tenn.
 Milwaukee Bridge Co., Milwaukee, Wis.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
 Scherzer Rolling Lift Bridge Co., Monadnock Blk., Chicago, Ill.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Scully Steel & Iron Co., Chicago, Ill.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia, Pa.
 Snare & Triest Co., 143 Liberty St., New York.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Waddell & Harrington, New Nelson Bldg., Kansas City, Mo.
 Warren Construction Co., Warren, Ohio.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wilkins, Grant, Atlanta, Ga.
 Wisconsin Bridge & Iron Co., N. Milwaukee, Wis.

Bridges (Suspension)

American Bridge Co. of N. Y., 30 Church St., N. Y.
 Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
 Canton Bridge Co., Canton, Ohio.
 Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 New York Cableway & Engineering Co., 1 Rector St., New York.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
 Roebling's Sons Co., John A., Trenton, N. J.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
 Terry & Tench Co., 131st St. & Lexington Ave., N. Y.
 Waddell & Harrington, New Nelson Bldg., Kansas City, Mo.

Bronze Founders

Du Bois Iron Works, Du Bois, Pa.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Lunkenheimer Co., Cincinnati, Ohio.
 Morris Co., I. P., Philadelphia, Pa.
 Schreiber & Sons Co., L., Cincinnati, Ohio.

Buckets

Barron, Jas. S., 133 Franklin St., New York.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Browning Mfg. Co., Cleveland, Ohio.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Burrell Mfg. Co., Bradley, Ill.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Cockburn Barrow & Machine Co., 32 Church St., N. Y.
 Cyclopean Iron Works, Nutley, N. J.
 Doud, A. N., 5802 Clinton Ave., Cleveland, Ohio.
 Hayward Co., 50 Church St., New York.
 Insley Mfg. Co., Indianapolis, Ind.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Kiesler Co., 72 Pratt St., Chicago, Ill.
 Koppel Co., Arthur, Pittsburg, Pa.

Mention "The Engineering Record" when writing.

New York Cableway & Engineering Co., 1 Rector St.,
New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken,
N. J.
Union Iron Works, Hoboken, N. J.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Buckets (Clam Shell)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Dodge Co., J. M., Nicetown, Philadelphia, Pa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago,
Ill.
Haiss, Geo., Mfg. Co., 138th St. & Rider Ave., N. Y.
Hayward Co., 50 Church St., New York.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony
Bldg., Chicago, Ill.
Kiesler Co., 72 Pratt St., Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Mead-Morrison Mfg. Co., Cambridge, Mass.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St.,
New York.
Northern Engineering Works, Detroit, Mich.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago,
Ill.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Williams, G. H., Co., Cleveland, Ohio.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co. Walter A., St. Louis, Mo.

Buckets (Concrete)

Barron, Jas. S., 133 Franklin St., New York.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Burrell Mfg. Co., Bradley, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Doud, A. N., 5802 Clinton Ave., Cleveland, Ohio.
Foote Concrete Machinery Co., 184 La Salle St., Chicago,
Ill.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Insley Mfg. Co., Indianapolis, Ind.
Kiesler Co., 72 Pratt St., Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St.,
New York.
Northern Engineering Works, Detroit, Mich.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Ransome Concrete Machinery Co., Dunellen, N. J.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.

Mention "The Engineering Record" when writing.

Stuebner, G. L., Iron Works, Long Island City, N. Y.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken,
N. J.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago,
Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Buckets (Dredging and Excavating)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Bucyrus Co., S. Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Doud, A. N., 5802 Clinton Ave., Cleveland, Ohio.
Hayward Co., 50 Church St., New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony
Bldg., Chicago, Ill.
Kiesler Co., 72 Pratt St., Chicago, Ill.
Koppel Co., Arthur, Pittsburg, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St.,
New York.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken,
N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago,
Ill.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
Williams, G. H., Co., Cleveland, Ohio.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Buckets (Dumping)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cockburn Barrow & Machine Co., 32 Church St., N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Doud, A. N., 5802 Clinton Ave., Cleveland, Ohio.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Insley Mfg. Co., Indianapolis, Ind.
Inter-State Equipment & Engineering Co., 305 Old Colony
Bldg., Chicago, Ill.
Kiesler Co., 72 Pratt St., Chicago, Ill.
Koppel Co., Arthur, Pittsburg, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St.,
New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Ransome Concrete Machinery Co., Dunellen, N. J.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken,
N. J.
Union Iron Works, Hoboken, N. J.

Mention "The Engineering Record" when writing.

Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Buckets (Elevator)

Allis-Chalmers Co., Milwaukee, Wis.
Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Brown Hoisting Machinery Co. Cleveland, Ohio.
Burrell Mfg. Co., Bradley, Ill.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Cresson Co., Geo. V., Allegheny Ave. & W. 17th St., Philadelphia, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
National Belting Co., Lawrence, Mass.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Power & Mining Machinery Co., Cudahy, Wis.
Robins Conveying Belt Co., Passaic, N. J.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
Traylor Engineering Co., Allentown, Pa.
Union Iron Works, Hoboken, N. J.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Buckets (Excavating)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Doud, A. N., 5802 Clinton Ave., Cleveland, Ohio.
Hayward Co., 50 Church St., New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Kiesler Co., 72 Pratt St., Chicago, Ill.
Koppel Co., Arthur, Pittsburg, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St., New York.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Williams, G. H., Co., Cleveland, Ohio.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Buckets (Orange Peel)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.

Mention "The Engineering Record" when writing.

Contractors' Plant Mfg. Co., Buffalo, N. Y.
 Dodge Co., J. M., Nicetown, Philadelphia, Pa.
 Hayward Co., 50 Church St., New York.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 Hunt Co., G. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Kiesler Co., 72 Pratt St., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 New York Cableway & Engineering Co., 1 Rector St., New York.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Wiener Co., Ernst, Fulton & Church St., New York.
 Youngstown Car Mfg. Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Building Blocks

Besser Mfg. Co., Alpena, Mich.
 Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
 Patton Clay Mfg. Co., Patton, Cambria Co., Pa.
 Rockport Granite Co., Rockport, Mass.
 Standard Concrete Steel Co., 32d St. & E. R., New York.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.

Building-Block Machinery

Besser Mfg. Co., Alpena, Mich.
 Burrell Mfg. Co., Bradley, Ill.
 Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.
 Peerless Brick Machine Co., 18 N. 6th St., Minneapolis.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.

Building Foundation

American Concrete Caisson Co., National State Bank Bldg., Troy, N. Y.
 Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
 Ferro Concrete Construction Co., Cincinnati, Ohio.
 Foundation Co., 115 Broadway, New York.
 Heyworth, James O., Harvester Bldg., Chicago, Ill.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago.
 Kidde, Walter, 140 Cedar St., New York.
 Pneumatic Caisson Co., National State Bank Bldg., Troy, N. Y.
 Raymond Concrete Pile Co., Pittsburg, Pa.
 Rockport Granite Co., Rockport, Mass.
 Rogers Co., J. S., Moorestown, N. J.
 Snare & Triest Co., 143 Liberty St., New York.
 Wilkins, Grant, Atlanta, Ga.

Building Material (See Also Cement, Building Blocks and Bridges and Roofs)

Atlas Portland Cement Co., 30 Broad St., New York.
 Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
 Berger Mfg. Co., Canton, Ohio.
 Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
 Carbolineum Wood Preserving Co., 349 W. B'way, N. Y.
 Concrete Steel Engineering Co., Park Row Bldg., N. Y.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Decatur Bridge Co., Decatur, Ill.
 Glidden Varnish Co., Cleveland, Ohio.
 Griffiths Iron Works Co., 23d & Papin Sts., St. Louis.
 Hermann, Leibniz, 11 Broadway, New York.

Mention "The Engineering Record" when writing.

Hydrex Felt & Engineering Co., 120 Liberty St., N. Y.
 Irwin, Thos. W., Mfg. Co., N. S., Pittsburg, Pa.
 Jackson, Geo. W., 179 W. Jackson Blvd., Chicago, Ill.
 Johns-Manville Co., H. W., 100 William St., New York.
 Lawrence Cement Co., 1 Broadway, New York.
 Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
 Miller & Co., C. L., 110 E. 23d St., New York.
 Northwestern Expanded Metal Co., Old Colony Bldg., Chicago, Ill.
 Peerless Brick Machine Co., 18 N. 6th St., Minneapolis.
 Portland Iron & Steel Co., 1009 Board of Trade Bldg., Boston, Mass.
 Rogers Co., J. S., Moorestown, N. J.
 Star Expansion Bolt Co., 147 Cedar St., New York.
 Trussed Concrete Steel Co., Trussed Concrete Bldg., Detroit, Mich.
 Universal Portland Cement Co., Commercial Bank Bldg., Chicago, Ill.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Warner Co., Chas., Wilmington, Del.

Building Papers

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.
 Barber Asphalt Paving Co., Maurer, N. J.
 Barrett Mfg. Co., 17 Battery Pl., New York.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Hydrex Felt & Engineering Co., 120 Liberty St., N. Y.
 Johns-Manville Co., H. W., 100 William St., New York.
 Warner Co., Chas., Wilmington, Del.
 Warren-Ehret Co., Land Title Bldg., Philadelphia, Pa.

Bulldozers

Fairbanks Co., Broome & Lafayette Sts., New York.

Cables (Drilling)

American Mfg. Co., 65 Wall St., New York.
 American Steel & Wire Co., Commercial National Bank Bldg., Chicago, Ill.
 Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
 Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
 Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.

Cables (Manila)

Allis-Chalmers Co., Milwaukee, Wis.
 American Mfg. Co., The, 65 Wall St., New York.
 Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
 Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
 Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Contractors' Plants Mfg. Co., Buffalo, N. Y.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cableways

American Steel & Wire Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.

Mention "The Engineering Record" when writing.

Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Carson Trench Machine Co., 16 Dorrance St., Boston.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Lambert Hoisting Engine Co., Newark, N. J.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 New York Cableway & Engineering Co., 1 Rector St., New York.
 Roebbling's Sons Co., John A., Trenton, N. J.
 Union Iron Works, Hoboken, N. J.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Wiener Co., Ernst, Fulton & Church Sts., New York.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Caisson Cylinders

Canton Bridge Co., Canton, Ohio.
 Clinton Bridge & Iron Works, Clinton, Iowa.
 East Jersey Pipe Co., 90 West St., New York.
 Foundation Co., 115 Broadway, New York.
 Graver, Wm., Tank Works, East Chicago, Ind.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Morris Co., J. P., Philadelphia, Pa.
 Petroleum Iron Works, Sharon, Pa.
 Pneumatic Caisson Co., National State Bank Bldg., Troy.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
 Wilkins, Grant, Atlanta, Ga.

Caisson Cylinders (Wooden)

Foundation Co., 115 Broadway, New York.
 Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
 Pneumatic Caisson Co., National State Bank Bldg., Troy.

Caisson Foundations

American Concrete Caisson Co., National State Bank Bldg., Troy, N. Y.
 Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
 Canton Bridge Co., Canton, Ohio.
 Foundation Co., 115 Broadway, New York.
 Heyworth, James O., Harvester Bldg., Chicago, Ill.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 O'Rourke Engineering Construction Co., 345 Fifth Ave., New York.
 Pneumatic Caisson Co., National State Bank Bldg., Troy.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Wilkins, Grant, Atlanta, Ga.

Caissons

American Concrete Caisson Co., National State Bank Bldg., Troy, N. Y.
 Canton Bridge Co., Canton, Ohio.
 Cole Mfg. Co., R. D., Newnan, Ga.
 East Jersey Pipe Co., 90 West St., New York.
 Foundation Co., 115 Broadway, New York.

Mention "The Engineering Record" when writing.

Heyworth, James O., Harvester Bldg., Chicago, Ill.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
O'Rourke Engineering Construction Co., 345 Fifth Ave.,
New York.
Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
Petroleum Iron Works, Sharon, Pa.
Pneumatic Caisson Co., National State Bank Bldg., Troy.
Scaife & Sons Co., Wm. B., 221 First Ave., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.

Calking Tools

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
Ingersoll-Rand Co., 11 Broadway, New York.
Smith, A. P., Mfg., Co., Newark, N. J.
Water Works Equipment Co., 50 Church St., New York.

Capstans (Hand, Steam and Electric)

American Ship Windlass Co., Providence, R. I.

Car Couplers, Fenders, Parts, Fittings and Car-Wheels

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Broderick & Bascom Rope Co., 805 N. Main St., St.
Louis, Mo.
Carnegie Steel Co., Pittsburg, Pa.
Douglas, Geo. B., 29 Broadway, New York.
Koppel Co., Arthur, Pittsburg, Pa.
Pittsburgh Mfg. Co., Pittsburg, Pa.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Car Movers and Pushers

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Broderick & Bascom Rope Co., 805 N. Main St., St.
Louis, Mo.
Burrell Mfg. Co., Bradley, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Car Replacers

Fairbanks Co., Broome & Lafayette Sts., New York.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Carbolineum

Carbolineum Wood Preserving Co., 349 W. B'way, N. Y.
Terodo Proof Paint Co., 17 Battery Pl., New York.

Cars

Archer Iron Works, Inc., 34th Pl. & Western Ave., Chi-
cago, Ill.
Bergen Point Iron Works, 149 Broadway, New York.
Chicago House Wrecking Co., 35th & Iron Sts., Chicago.
Continental Car & Equipment Co., 17 Battery Pl., N. Y.
Dahlstrom Metallic Door Co., Jamestown, N. Y.

Mention "The Engineering Record" when writing.

Dallett & Co., 611 Harrison Bldg., Philadelphia, Pa.
 Douglas, Geo. B., 29 Broadway, New York.
 Hobbs-Ives Equipment & Machinery Co., Seaboard Bank,
 Norfolk, Va.
 Hunt Co., C. W., West New Brighton, N. Y.
 Indianapolis Switch & Frog Co., Springfield, Ohio.
 Inter-State Equipment & Engineering Co., 305 Old Colony
 Bldg., Chicago, Ill.
 Kent Machine Co., Kent, Ohio.
 Koppel Co., Arthur, Pittsburg, Pa.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Southern Iron & Equipment Co., Atlanta, Ga.
 Stuebner, G. L., Iron Works, Long Island City, N. Y.
 Traylor Engineering Co., Allentown, Pa.
 Union Iron Works, Hoboken, N. J.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Wiener Co., Ernst, Fulton & Church Sts., New York.
 Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
 Youngstown Car Mfg. Co., Youngstown, Ohio
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Ballast)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Continental Car & Equipment Co., 17 Battery Pl., N. Y.
 Hunt Co., C. W., West New Brighton, N. Y.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Wiener Co., Ernst, Fulton & Church Sts., New York.
 Youngstown Car Mfg. Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Coal and Ash)

Archer Iron W'ks, Inc., 34th Pl. & Western Ave., Chicago.
 Bartlett, C. O., & Snow Co., Cleveland, Ohio.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Continental Car & Equipment Co., 17 Battery Pl., N. Y.
 Haiss, Geo., Mfg. Co., 138th & Rider Ave., New York.
 Hunt Co., C. W., West New Brighton, N. Y.
 Koppel Co., Arthur, Pittsburg, Pa.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Northern Engineering Works, Detroit, Mich.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Stuebner, G. L., Iron Works, Long Island City, N. Y.
 Union Iron Works, Hoboken, N. J.
 Wiener Co., Ernst, Fulton & Church Sts., New York.
 Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
 Youngstown Car Mfg. Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Concrete)

Archer Iron W'ks, Inc., 34th Pl. & Western Ave., Chicago.
 Besser Mfg. Co., Alpena, Mich.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Continental Car & Equipment Co., 17 Battery Pl., N. Y.
 Heyworth, James O., Harvester Bldg., Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 305 Old Col-
 ony Bldg., Chicago, Ill.
 Kent Machine Co., Kent, Ohio.
 Koppel Co., Arthur, Pittsburg, Pa.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.

Mention "The Engineering Record" when writing.

McCoy Co., Henry J., 67 Dey St., New York.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Stuebner, G. L., Iron Works, Long Island City, N. Y.
 Tidewater Iron W'ks, 8th & Jefferson Sts., Hoboken, N. J.
 Union Iron Works, Hoboken, N. J.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Wiener Co., Ernst, Fulton & Church Sts., New York.
 Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
 Youngstown Car Mfg. Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Derrick (Self-Propelling))

American Bridge Co., of N. Y., 30 Church St., N. Y.
 American Hoist & Derrick Co., St. Paul, Minn.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Northern Engineering Works, Detroit, Mich.
 Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
 Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
 Youngstown Car Mfg. Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Dumping)

Allis-Chalmers Co., Milwaukee, Wis.
 Archer Iron Works, Inc., 34th Pl. & Western Ave., Chicago, Ill.
 Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
 Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
 Bartlett, C. O., & Snow Co., Cleveland, Ohio.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Continental Car & Equipment Co., 17 Battery Pl., N. Y.
 Haiss Geo., Mfg. Co., 138th St. & Rider Ave., New York.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 67 Dey St., New York.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Stuebner, G. L., Iron Works, Long Island City, N. Y.
 Union Iron Works, Hoboken, N. J.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Wiener Co., Ernst, Fulton & Church Sts., New York.
 Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
 Youngstown Car Mfg. Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Elevator)

Youngstown Car Mfg. Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Cars (Flat)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Continental Car & Equipment Co., 17 Battery Pl., N. Y.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Koppel Co., Arthur, Pittsburg, Pa.
McCoy Co., Henry J., 67 Dey St., New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Southern Iron & Equipment Co., Atlanta, Ga.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Tidewater Iron W'ks, 8th & Jefferson Sts., Hoboken, N.J.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Gasoline Motor)

Du Bois Iron Works, Du Bois, Pa.
Janney, Steinmetz & Co., Philadelphia, Pa.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Shadegg Engine Co., 315 Third St., So., Minneapolis.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Hand and Push)

Archer Iron Works, Inc., 34th Pl. & Western Ave., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Continental Car & Equipment Co., 17 Battery Pl., N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Koppel Co., Arthur, Pittsburg, Pa.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Standard Scale & Supply Co., 52 S. Canal St., Chicago, Ill.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Wallace Hoist Sales Co., Fort Wayne, Ind.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Industrial)

Archer Iron Works, Inc., 34th Pl. & Western Ave., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Continental Car & Equipment Co., 17 Battery Pl., N. Y.
Haiss, Geo., Mfg. Co., 128th & Rider Ave., N. Y.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Koppel Co., Arthur, Pittsburg, Pa.
McCoy Co., Henry J., 67 Dey St., New York.

Mention "The Engineering Record" when writing.

Mead-Morrison Mfg. Co., Cambridge, Mass.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Standard Scale & Supply Co., 52 S. Canal St., Chicago.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Union Iron Works, Hoboken, N. J.
Whitehead & Kales Iron Works, Detroit, Mich.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Inspection)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Mining)

Allis-Chalmers Co., Milwaukee, Wis.
Archer Iron Works, Inc., 34th Pl. & Western Ave.,
Chicago, Ill.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Carroll-Porter Boiler & Tank Co., Empire Bldg., Pitts-
burg, Pa.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Continental Car & Equipment Co., 17 Battery Pl., N. Y.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Col-
ony Bldg., Chicago, Ill.
Koppel Co., Arthur, Pittsburg, Pa.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry, J., 67 Dey St., New York.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Northern Engineering Works, Detroit, Mich.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Pacific Tank Co., Equitable Bk. Bldg., Los Angeles, Cal.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Tidewater Iron W'ks, 8th & Jefferson Sts., Hoboken, N.J.
Traylor Engineering Co., Allentown, Pa.
Union Iron Works, Hoboken, N. J.
Whitehead & Kales Iron Works, Detroit, Mich.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars, Second-Hand (See Second-Hand Ma- chinery and Supplies)

Cars (Tank)

Carroll-Porter Boiler & Tank Co, Empire Bldg., Pitts-
burg, Pa.
Graver, Wm., Tank Works, East Chicago, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
Scaife & Sons Co., Wm. B., 221 First Ave., Pittsburg, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
Tidewater Iron W'ks, 8th & Jefferson Sts., Hoboken, N.J.
Wendnagel & Co., 22d & Jefferson Sts., Chicago, Ill.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Cars (Tower)

Wallace Hoist Sales Co., Ft. Wayne, Ind.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Velocipede)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cars (Wrecking and Ditching)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Carts and Wagons (Ash and Dump)

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Lake Erie Engineering Works, Buffalo, N. Y.
Lally, Patrick & Sons, 21 W. 1st St., South Boston, Mass.
Longenecker & Co., Chas., 150 Nassau St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Sproul, Harvey B., Peekskill, N. Y.
Troy Wagon Works Co., S. Walnut St., Troy, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Watson Wagon Co., Canastota, N. Y.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Carts (Concrete)

Archer Iron W'ks, Inc., 34th Pl. & Western Ave., Chicago.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Burness Concrete Truck Co., Scarritt Bldg., Kansas City, Mo.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Foote Concrete Machinery Co., 184 La Salle St., Chicago.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Lally, Patrick & Sons, 21 W. 1st St., South Boston, Mass.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Ransome Concrete Machinery Co., Dunellen, N. J.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
Standard Scale & Supply Co., 52 S. Canal St., Chicago, Ill.
Sterling Wheelbarrow Co., Milwaukee, Wis.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Union Iron Works, Hoboken, N. J.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Castings (Iron)

American Cast-Iron Pipe Co., Birmingham, Ala.
American Ship Windlass Co., Providence, R. I.

Mention "The Engineering Record" when writing.

Builders' Iron Foundry, Providence, R. I.
 Chain Belt Co., Milwaukee, Wis.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.
 Climax Road Machine Co., Marathon, N. Y.
 Coldwell-Wilcox Co., Newburgh, N. Y.
 Dimmick Pipe Co., Birmingham, Ala.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Douglas Geo. B., 29 Broadway, New York.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Du Bois Iron Works, Du Bois, Pa.
 Flory, S., Mfg. Co., Bangor, Pa.
 Fox & Co., John, 253 Broadway, New York.
 Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
 Hildreth Mfg. Co., 703 Sheridan St., Lansing, Mich.
 Huron Steel & Iron Co., Norwalk, Ohio.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Massillon Iron & Steel Co., Massillon, Ohio.
 McWane Pipe Works, Lynchburg, Va.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Moore, Sam'l L., & Sons, Elizabeth, N. J.
 Morris Co., I. P., Philadelphia, Pa.
 Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
 Phoenix Iron Works Co., Meadville, Pa.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Power & Mining Machinery Co., Cudahy, Wis.
 Robins Conveying Belt Co., Passaic, N. J.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Sivyer Steel Casting Co., Milwaukee, Wis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Standard Cast Iron Pipe & Foundry Co., Bristol, Pa.
 Traylor Engineering Co., Allentown, Pa.
 Union Iron Works, Hoboken, N. J.
 U. S. Cast Iron Pipe & Foundry Co., 71 B'way, N. Y.
 Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
 Vulcan Iron Works, Wilkes-Barre, Pa.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
 Youngstown Car Mfg. Co., Youngstown, Ohio.

Castings (Malleable Iron)

Chain Belt Co., Milwaukee, Wis.
 Chisholm & Moore Mfg. Co., Cleveland, Ohio.
 Du Bois Iron Works, Du Bois, Pa.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Janney Steinmetz & Co., Philadelphia, Pa.
 Parsons Co., G. W., Observatory Bldg., Des Moines, Ia.
 Star Expansion Bolt Co., 147 Cedar St., New York.
 Union Iron Works, Hoboken, N. J.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
 Youngstown Car Mfg. Co., Youngstown, Ohio.

Castings (Steel)

Chain Belt Co., Milwaukee, Wis.
 Douglas, Geo. B., 29 Broadway, New York.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Du Bois Iron Works, Du Bois, Pa.
 Goldschmidt Thermit Co., 90 West St., New York.
 Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
 Janney Steinmetz & Co., Philadelphia, Pa.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Parsons Co., G. W., Observatory Bldg., Des Moines, Ia.
 Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.

Mention "The Engineering Record" when writing.

Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.
Union Iron Works, Hoboken, N. J.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Ceiling and Siding (Iron and Steel)

Farwell, Ozman, Kirk & Co., St. Paul, Minn.
Garry Iron & Steel Co., Coe & Lake Sts., Cleveland.
Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
Mullins Co., W. H., Salem, Ohio.

Cement

Alma Cement Co., Wellston, Ohio.
Alsens American Portland Cement Works, 45 B'way, N.Y.
American Cement Co., Pennsylvania Bldg., Phila., Pa.
Atlas Portland Cement Co., 30 Broad St., New York.
Chicago Portland Cement Co., 108 La Salle St., Chicago.
Clow, Jas B., & Sons, 350 Franklin St., Chicago, Ill.
Consolidated Rosendale Cement Co., 50 Church St., N.Y.
Continental Portland Cement Co., Syndicate Trust Bldg.,
St. Louis, Mo.
Coplay Cement Mfg. Co., Pennsylvania Bldg., Philadelphia, Pa.
Dexter Portland Cement Co, Philadelphia, Pa.
Douglas, Geo. B., 29 Broadway, New York.
Edison Portland Cement Co., St. James Bldg., N. Y.
Fredensburg & Lounsbury, 289 Fourth Ave., New York.
French, Samuel H., & Co., Philadelphia, Pa.
Fuller Engineering Co, Allentown, Pa.
Glens Falls Portland Cement Co., Glens Falls, N. Y.
Hartranft Cement Co., Wm. G., Real Estate Trust Bldg.,
Philadelphia, Pa.
Ironton Portland Cement Co., Ironton, Ohio.
Lawrence Cement Co., 1 Broadway, New York.
Lehigh Portland Cement Co., Allentown, Pa.
Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
Peninsular Portland Cement Co., Jackson, Mich.
St. Louis Portland Cement Co., St. Louis, Mo.
Sandusky Portland Cement Co., Sandusky, Ohio.
Southern States Portland Cement Co., Rockmart, Ga.
Universal Portland Cement Co., Commercial Bank Bldg.,
Chicago, Ill.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Wadsworth, Howland & Co., 156 Fifth Ave., New York.
Warner Co., Chas., Wilmington, Del.

Cement Block and Brick Machines

Anchor Concrete Stone Co., Rock Rapids, Ia.
Besser Mfg. Co., Alpena, Mich.
Burrell Mfg. Co., Bradley, Ill.
Cement Machinery Co., Jackson, Mich.
Century Cement Machine Co., Rochester, N. Y.
Conveying Weigher Co., 92 West St., New York.
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.
Peerless Brick Machine Co., 18 N. Sixth St., Minneapolis.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Waterloo Cement Machinery Corporation, Waterloo, Ia.

Cement-Making Machinery

Allis-Chalmers Co., Milwaukee, Wis.
Anchor Concrete Stone Co., Rock Rapids, Ia.
Besser Mfg. Co., Alpena, Mich.
Cement Machinery Co., Jackson, Mich.

Mention "The Engineering Record" when writing.

Conveying Weigher Co., 92 West St., New York.
 Cummer & Son Co., F. D., Cleveland, Ohio.
 Fuller Engineering Co., Allentown, Pa.
 Hardsocg Co., Martin, Allegheny, Pa.
 Kent Mill Co., 170 Broadway, New York.
 Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
 Power & Mining Machinery Co., Cudahy, Wis.
 Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.
 Raymond Bros. Impact Pulverizer Co., 145 Laflin St.,
 Chicago, Ill.
 Robins Conveying Belt Co., Passaic, N. J.
 Ruggles-Coles Engineering Co., 39 Cortlandt St., N. Y.
 Smidth & Co., F. L., 50 Church St., New York.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Vulcan Iron Works, Wilkes-Barre, Pa.
 Williams Pat. Crusher & Pulverizer Co., Old Colony
 Bldg., Chicago, Ill.

Cement Mixers

Abenague Machine Works, Westminster St., Vt.
 Atlas Dryer Co., Cleveland, Ohio.
 Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
 Bartlett, C. O., & Snow Co., Cleveland, Ohio.
 Besser Mfg. Co., Alpena, Mich.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Burrell Mfg. Co., Bradley, Ill.
 Century Cement Machine Co., Rochester, N. Y.
 Chain Belt Co., Milwaukee, Wis.
 Collins Co., W. A., First Nat'l. Bk. Bldg., Chicago, Ill.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Dunning, W. D., Waters St., Syracuse, N. Y.
 Eureka Machine Co., Lansing, Mich.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 Inter-State Equipment & Engineering Co., 305 Old Col-
 ony Bldg., Chicago, Ill.
 Kent Machine Co., Kent, Ohio.
 Kingston Mfg. Co., Wilkes-Barre, Pa.
 Koehring Machine Co., Milwaukee, Wis.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 Municipal Engineering & Construction Co., Railway Ex-
 change, Chicago, Ill.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
 Standard Scale & Supply Co., 52 S. Canal St., Chicago, Ill.
 Svenson-Shuman Machine Co., 602 Bessemer Bldg., Pitts-
 burg, Pa.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Waterloo Cement Machinery Corporation, Waterloo, Ia.
 Youngstown Car Mfg., Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cement (White)

Sandusky Portland Cement Co., Sandusky, Ohio.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Warner Co., Chas., Wilmington, Del.

Cement Testing Machines

Ainsworth, Wm., & Sons, Denver, Colo.
 Architects & Engineers Supply Co., 1010 Grand Ave.,
 Kansas City, Mo.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Ransome Concrete Machinery Co., Dunellen, N. J.

Mention "The Engineering Record" when writing.

Cement Walk Tools

Besser Mfg. Co., Alpena, Mich.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Burrell Mfg. Co., Bradley, Ill.
Connelly, P. F., El Reno, Okla.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.

Cement Waterproofing

Barber Asphalt Paving Co., Maurer, N. J.
Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
Glidden Varnish Co., Cleveland, Ohio.
Sandusky Portland Cement Co., Sandusky, Ohio.
Texas Co., 17 Battery Pl., New York.
Trussed Concrete Steel Co., Trussed Concrete Bldg.,
Detroit, Mich.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Warner Co., Chas., Wilmington, Del.
Waterproofing Co., 147 E. 35th St., New York.

Cement Weighing Machines

Ainsworth, Wm. & Sons, Denver, Colo.
Fairbanks Co., Broome & Lafayette Sts., New York.
Standard Scale & Supply Co., 52 S. Canal St., Chicago.

Centers

Besser Mfg. Co., Alpena, Mich.
Blaw Collapsible Steel Centering Co., Pittsburg, Pa.
Longenecker & Co., Chas., 150 Nassau St., New York.
Ransome Concrete Machinery Co., Dunellen, N. J.

Chains (Common)

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Jones & Laughlin Steel Co., Pittsburg, Pa.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.

Chains (Sprocket)

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Burrell Mfg. Co., Bradley, Ill.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Conveying Weigher Co., 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St.,
Philadelphia, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Morse Chain Co., Ithaca, N. Y.
Sivyer Steel Castings Co., Milwaukee, Wis.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Channelers

Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago.

Mention "The Engineering Record" when writing.

Channels (See Structural Steel)

Chemical Engines

Badger, E. B., & Sons Co., 75 Pitts St., Boston, Mass.
Johns-Manville Co., H. W., 100 William St., New York.

Chemists

Dow & Smith, 24 East 21st St., New York.
Fuller Engineering Co., Allentown, Pa.
Lehigh Valley Testing Laboratory, Allentown, Pa.
Lunkenheimer Co., Cincinnati, Ohio.
McKenna, C. F., Hudson Terminal, New York.

Chimneys (Concrete)

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
Concrete Steel Engineering Co., Park Row Bldg., N. Y.
Custodis, Alphons, Chimney Construction Co., 95 Nassau St., New York.
Trussed Concrete Steel Co., Trussed Concrete Bldg., Detroit, Mich.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Weber Co., Marquette Bldg., Chicago, Ill.

Chimneys (Radial Bricks)

Custodis, Alphons, Chimney Construction Co., 95 Nassau St., New York.
Heinicke, H. R., 147 Fourth Ave., New York.

Chimneys (Steel)

Baldwin, William J., World Bldg., New York.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Cole Mfg. Co., R. D., Newnan, Ga.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Graver, Wm. Tank Works, East Chicago, Ind.
Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Petroleum Iron Works, Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Struthers-Wells Co., Warren, Pa.
Virginia Bridge & Iron Co., Roanoke, Va.
Warren Construction Co., Warren, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Chimney Tops (Vitrified Clay)

Evans & Howard Fire Brick Co., St. Louis, Mo.
Patton Clay Mfg. Co., Patton, Cambria Co., Pa.
Robinson Clay Product Co., Flatiron Bldg., New York.

Clamps (Bridge)

Griffiths Iron Works Co., 23d & Papin Sts., St. Louis, Mo.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.

Clamps and Clips (Wire-Rope)

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Roebeling's Sons Co., John A., Trenton, N. J.

Mention "The Engineering Record" when writing.

Cleaners (Flue)

National Equipment Co., 276 Dearborn St., Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Clevis Nuts

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Clutches (Friction)

Allis-Chalmers Co., Milwaukee, Wis.
Burrell Mfg. Co., Bradley, Ill.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Coal and Ore-Handling Machinery

Allis-Chalmers Co., Milwaukee, Wis.
Atlas Dryer Co., Cleveland, Ohio.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bergen Point Iron Works, 149 Broadway, New York.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Climax Road Machine Co., Marathon, N. Y.
Conveying Weigher Co., 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
Dodge Co., J. M., Nicetown, Philadelphia, Pa.
Flory, S., Mfg. Co., Bangor, Pa.
Haiss, Geo., Mfg. Co., 138th St. & Rider Ave., N. Y.
Hayward Co., 50 Church St., New York.
Heyl & Patterson, Inc., Pittsburg, Pa.
Hunt Co., C. W., West New Brighton, N. Y.
Kiesler Co., 72 Pratt St., Chicago, Ill.
Lambert Hoisting Engine Co., Newark, N. J.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Raymond Bros. Impact Pulverizer Co., 145 Lafin St., Chicago, Ill.
Robins Conveying Belt Co., Passaic, N. J.
Stuebner, G. L. Iron Works, Long Island City, N. Y.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken, N. J.
Traylor Engineering Co., Allentown, Pa.
Union Iron Works, Hoboken, N. J.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
Williams Pat. Crusher & Pulverizer Co., Old Colony Bldg., Chicago, Ill.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Coal Tipples

American Bridge Co., of N. Y., 30 Church St., N. Y.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
Brown Hoisting Machinery Co., Cleveland, Ohio.

Mention "The Engineering Record" when writing.

Decatur Bridge Co., Decatur, Ill.
 Indianapolis Switch & Frog Co., Springfield, Ohio.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., B. & C., Dept., Steelton, Pa.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Rogers Co., J. S., Moorestown, N. J.
 Scaife & Sons Co., Wm. B., 221 First Ave., Pittsburg, Pa.
 Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Wisconsin Bridge & Iron Co., N. Milwaukee, Wis.
 Youngstown Car Mfg. Co., Youngstown, Ohio.

Cofferdams

American Concrete Caisson Co., Nat'l State Bank Bldg., Troy, N. Y.
 Foundation Co., 115 Broadway, New York.
 Heyworth, James O., Harvester Bldg., Chicago, Ill.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Pneumatic Caisson Co., National State Bank Bldg., Troy, N. Y.
 Wilkins, Grant, Atlanta, Ga.

Colors, Mortar

Garry Iron & Steel Co., Coe & Lake Sts., Cleveland, Ohio.

Compressed-Air Tools

American Air Compressor Works, 26 Cortlandt St., N.Y.
 Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
 Hardsocg Co., Martin, Allegheny, Pa.
 Independent Pneumatic Tool Co., Thor Bldg., Chicago.
 Ingersoll-Rand Co., 11 Broadway, New York.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Scaife & Sons Co., Wm. B., 221 First Ave., Pittsburg, Pa.
 Scully Steel & Iron Co., Chicago, Ill.
 Sullivan Machinery Co., Railway Exchange, Chicago, Ill.

Concrete Barrows

Archer Iron Works, Inc., 34th Pl. & Western Ave., Chicago, Ill.
 Bergen Point Iron Works, 149 Broadway, New York.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Burness Concrete Truck Co., Scarritt Bldg., Kansas City, Mo.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Koehring Machine Co., Milwaukee, Wis.
 McCoy Co., Henry J., 67 Dey St., New York.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
 Sterling Wheelbarrow Co., Milwaukee, Wis.
 Stuebner, G. L., Iron Works, Long Island City, N. Y.
 Toledo Wheelbarrow Co., Toledo, Ohio.
 Union Iron Works, Hoboken, N. J.

Mention "The Engineering Record" when writing.

Wallace Hoist Sales Co., Ft. Wayne, Ind.
Waterloo Cement Machinery Corporation, Waterloo, Ia.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Concrete Block Machines

Besser Mfg. Co., Alpena, Mich.
Burrell Mfg. Co., Bradley, Ill.
Century Cement Machine Co., Rochester, N. Y.
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Peerless Brick Machine Co., 18 N. 6th St., Minneapolis, Minn.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Waterloo Cement Machinery Corporation, Waterloo, Ia.

Concrete Construction

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
Ambursen Hydraulic Construction Co., 176 Federal St., Boston, Mass.
American Concrete Caisson Co., National State Bank Bldg., Troy, N. Y.
American Concrete Steel Co., Newark, N. J.
Baltimore Bridge Co., Baltimore, Md.
Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
Canton Bridge Co., Canton, Ohio.
Collins Co., W. A., First Nat'l Bank Bldg., Chicago, Ill.
Concrete Steel Co., 29 Broadway, New York.
Concrete Steel Engineering Co., Park Row Bldg., N. Y.
Corrugated Bar Co., St. Louis, Mo.
Dodge Co., J. M., Nicetown, Philadelphia, Pa.
Doud, A. N., 5302 Clinton Ave., Cleveland, Ohio.
Ferro Concrete Construction Co., Cincinnati, Ohio.
Foundation Co., 115 Broadway, New York.
Freeborn Engineering & Construction Co., Scarritt Bldg., Kansas City, Mo.
Hennebique Construction Co., 1170 B'way, New York.
Hermann, Leibu, 11 Broadway, New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Hough Co., Wm., B., Monadnock Blk., Chicago, Ill.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Kidde, Walter, 140 Cedar St., New York.
Lindsay, W. W. & Co., Harrison Bldg., Philadelphia, Pa.
McCormick & Co., 14 S. Broad St., Philadelphia, Pa.
Overhead & Underground Construction Co., 2 Rector St., New York.
Page Woven Wire Fence Co., Adrian, Mich.
Parnley, Walter C., Everett Bldg., Union Sq., N. Y.
Pennsylvania Contracting Co., Publication Bldg., N. Y.
Pneumatic Caisson Co., Nat'l State Bank Bldg., Troy, N. Y.
Ransome, Ernest L., 11 Broadway, New York.
Raymond Concrete Pile Co., 135 Adams St., Chicago.
Reinforced Concrete Pipe Co., Jackson, Mich.
Roebbling Construction Co., Fuller Bldg., New York.
Rogers Co., J. S., Moorestown, N. J.
Standard Concrete Steel Co., 32d St. & E. R., New York.
Star Expansion Bolt Co., 147 Cedar St., New York.
Trussed Concrete Steel Co., Trussed Concrete Bld., Detroit, Mich.
Tucker & Vinton, Terminal Bldg., New York.
Turner Construction Co., 11 Broadway, New York.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Wadsworth Stone & Paving Co., Bessmer Bldg., Pittsburgh, Pa.

Mention "The Engineering Record" when writing.

Waterproofing Co., 147 E. 35th St., New York.
White & Co., J. G., Inc., 43 Exchange Pl., New York.
Wilkins, Grant, Atlanta, Ga.

Concrete (Reinforced)

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
American Concrete Caisson Co., Nat'l State Bank Bldg.,
Troy, N. Y.
American Concrete Steel Co., Newark, N. J.
American Luxfer Prism Co., 42 Madison St., Chicago, Ill.
American Steel & Wire Co., Com'l Nat'l Bank Bldg.,
Chicago, Ill.
Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
Buffalo Steel Co., Tonawanda, N. Y.
Canton Bridge Co., Canton, Ohio.
Collins Co., W. A., First Nat'l Bank Bldg., Chicago, Ill.
Concrete Steel Co., 29 Broadway, New York.
Concrete Steel Engineering Co., Park Row Bldg., N. Y.
Corrugated Bar Co., St. Louis, Mo.
Dodge Co., J. M., Nicetown, Philadelphia, Pa.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Ferro Concrete Construction Co., Cincinnati, Ohio.
Foundation Co., 115 Broadway, New York.
Freeborn Engineering & Construction Co., Scarritt
Bldg., Kansas City, Mo.
Hennebique Construction Co., 1170 Broadway, New York.
Hermann, Leib, 11 Broadway, New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Hough Co., Wm. B., Monadnock Bldg., Chicago, Ill.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Kidde, Walter, 140 Cedar St., New York.
Lindsay, W. W. & Co., Harrison Bldg., Philadelphia, Pa.
Lock Joint Pipe Co., 165 Broadway, New York.
Marquette Cement Mfg. Co., Marquette Bldg., Chi-
cago, Ill.
Mississippi Valley Construction Co., Fullerton Bldg.,
St. Louis, Mo.
Page Woven Wire Fence Co., Adrian, Mich.
Parmley, Walter C., Everett Bldg., Union Sq., N. Y.
Pennsylvania Contracting Co., Publication Bldg., N. Y.
Pneumatic Caisson Co., National State Bank Bldg.,
Troy, N. Y.
Portland Iron & Steel Co., 1009 Board of Trade Bldg.,
Boston, Mass.
Ransome, Ernest L., 11 Broadway, New York.
Raymond Concrete Pile Co., 135 Adams St., Chicago, Ill.
Reinforced Concrete Pipe Co., Jackson, Mich.
Roebeling Construction Co., Fuller Bldg., New York.
Standard Concrete Steel Co., 32d St. & E. R., New York.
Truss Metal Lath Co., 147 Fourth Ave., New York.
Trussed Concrete Steel Co., Trussed Concrete Bldg.,
Detroit, Mich.
Tucker & Vinton, Terminal Bldg., New York.
Turner Construction Co., 11 Broadway, New York.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Waddell & Harrington, New Nelson Bldg., Kansas
City, Mo.
Wadsworth Stone & Paving Co., Bessmer Bldg., Pitts-
burg, Pa.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Waterproofing Co., 147 E. 35th St., New York.
Wilkins, Grant, Atlanta, Ga.

Mention "The Engineering Record" when writing.

Concrete Mixers

Abenague Machine Works, Westminster Sta., Vt.
Barron, Jas. S., 133 Franklin St., New York.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Besser Mfg. Co., Alpena, Mich.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Buffalo Concrete Mixer Co., Builders' Exchange, Buffalo, N. Y.
Burrell Mfg. Co., Bradley, Ill.
Century Cement Machine Co., Rochester, N. Y.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Chicago Concrete Machinery Company, 335 Old Colony Bldg., Chicago, Ill.
Clover Leaf Machine Co., South Bend, Ind.
Collins Co., W. A., First Nat'l Bank Bldg., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Drake Standard Machine Works, 298 W. Jackson Blvd., Chicago, Ill.
Dunning, W. D., Waters St., Syracuse, N. Y.
Eureka Machine Co., Lansing, Mich.
Fairbanks Co., Broome & Lafayette Sts., New York.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
Hobbs-Ives Equipment & Machinery Co., Seaboard Bank, Norfolk, Va.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Kent Machine Co., Kent, Ohio.
Kingston Mfg. Co., Wilkes-Barre, Pa.
Koehring Machine Co., Milwaukee, Wis.
Longenecker & Co., Chas., 150 Nassau St., New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 67 Dey St., New York.
Municipal Engineering & Construction Co., Railway Exchange, Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Nims Concrete Machinery Co., Philadelphia; Jefferson Co., New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Ransome Concrete Machinery Co., Dunellen, N. J.
Smith, T. I., Co., 305 Old Colony Bldg., Chicago, Ill.
Snell, R. Z., Mfg., Co., South Bend, Ind.
Standard Scale & Supply Co., 52 S. Canal St., Chicago, Ill.
Svenson-Shuman Machine Co., 602 Bessmer Bldg., Pittsburgh, Pa.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Wilcox Co., W. H., Binghamton, N. Y.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Concrete Reinforcement

American Rolling Mill Co., Middletown, Ohio.
American Steel & Wire Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
American System of Reinforcing, 189 La Salle St., Chicago, Ill.
Berger Mfg. Co., Canton, Ohio.
Buffalo Steel Co., Tonawanda, N. Y.
Calumet Steel Co., Com'l Nat'l Bank Bldg., Chicago, Ill.

Mention "The Engineering Record" when writing.

Collins Co., W. A., First Nat'l Bank Bldg., Chicago, Ill.
 Concrete Steel Co., 29 Broadway, New York.
 Concrete Steel Engineering Co., Park Row Bldg., N. Y.
 Consolidated Expanded Metal Cos., 225 Fifth Ave., N. Y.
 Corrugated Bar Co., St. Louis, Mo.
 Hennebique Construction Co., 1170 B'way, New York.
 Hermann, Leibn., 11 Broadway, New York.
 Hough Co., Wm. B., Monadnock Bk., Chicago, Ill.
 Hudson Structural Steel Co., 136th St. & Southern
 Boulevard, New York.
 Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Lackawanna Steel Co., 2 Rector St., New York.
 Mississippi Valley Construction Co., Fullerton Bldg.,
 St. Louis, Mo.
 Northwestern Expanded Metal Co., Old Colony, Bldg.,
 Chicago, Ill.
 Page Woven Wire Fence Co., Adrian, Mich.
 Portland Iron & Steel Co., 1009 Board of Trade Bldg.,
 Boston, Mass.
 Ransome, Ernest L., 11 Broadway, New York.
 Reinforced Concrete Pipe Co., Jackson, Mich.
 Roebling Construction Co., Fuller Bldg., New York.
 Rogers-Shear Co., Warren, Pa.
 Standard Concrete Steel Co., 32d St. & E. R., New York.
 Steel Protected Concrete Co., Real Estate Trust Bldg.,
 Philadelphia, Pa.
 Truss Metal Lath Co., 147 Fourth Ave., New York.
 Trussed Concrete Steel Co., Trussed Concrete Bldg.,
 Detroit, Mich.
 Turner Construction Co., 11 Broadway, New York.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.

Concrete Waterproofing

American Asphaltum & Rubber Co., 600-609 The Har-
 vester Bldg., Chicago, Ill.
 Aquabar Co., The, 1228 Locust St., Philadelphia, Pa.
 Barber Asphalt Paving Co., Maurer, N. J.
 Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
 Elaterite Paint & Mfg. Co., Des Moines, Ia.
 Foundation Co., 115 Broadway, New York.
 Glidden Varnish Co., Cleveland, Ohio.
 Hydrex Felt & Engineering Co., 120 Liberty St., N. Y.
 Knickerbocker Chemical Co., 24-26 Stone St., N. Y.
 Miller & Co., C. L., 110 E. 23d St., New York.
 Sandusky Portland Cement Co., Sandusky, Ohio.
 Standard Concrete Steel Co., 32d St. & E. R., New York.
 Texas Co., 17 Battery Pl., New York.
 Trussed Concrete Steel Co., Trussed Concrete Bldg.,
 Detroit, Mich.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Warner Co., Chas., Wilmington, Del.
 Waterproofing Co., 147 E. 35th St., New York.

Condensers

Alberger Pump Co., 95 Liberty St., New York.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Ship Windlass Co., Providence, R. I.
 Atlantic Hydraulic Machinery Co., Drexel Bldg., Phila-
 delphia, Pa.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Dean Bros., Steam Pump Co., Indianapolis, Ind.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Epping-Carpenter Co., Pittsburg, Pa.

Mention "The Engineering Record" when writing.

International Steam Pump Co., 115 B'way, New York.
 Knowles Steam Pump Works, 115 B'way, New York.
 Lawrence Machine Co., Lawrence, Mass.
 Morris Co., I. P., Philadelphia, Pa.
 Osbun Co., B. M., Commercial National Bank Bldg.,
 Chicago, Ill.
 Pacific Tank Co., Equitable Bank Bldg., Los Angeles,
 Phoenix Iron Works Co., Meadville, Pa.
 Prescott, Fred. M., Steam Pump Co., Milwaukee, Wis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Union Steam Pump Co., Battle Creek, Mich.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wheeler, C. H., Mfg. Co., 18th & Lehigh Ave., Phila-
 delphia, Pa.
 Williamson Bros. Co., Philadelphia, Pa.

Conduit Work

Overhead & Underground Construction Co., 2 Rector
 St., New York.

Conduits (Creosoted Wood)

Carbolineum Wood Preserving Co., 349 West Broadway,
 New York.
 National Wood Pipe Co., Equitable Bank Bldg., Los
 Angeles, Cal.
 Wyckoff Pipe & Creosoting Co., Inc., 50 Church St.,
 New York.

Conduits (Electric Wiring)

Fibre Conduit Co., Orangeburg, N. Y.
 Star Expansion Bolt Co., 147 Cedar St., New York.

Conduits (Steel)

Chicago Bridge & Iron Works, 105th & Throop Sts.,
 Chicago, Ill.
 Graver, Wm., Tank Works, East Chicago, Ind.
 Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Reinforced Concrete Pipe Co., Jackson, Mich.
 Riter-Conley Mfg. Co., Pittsburg, Pa.

Conduits (Vitrified Clay)

Evens & Howard Fire Brick Co., St. Louis, Mo.
 Johns-Manville Co., H. W., 100 William St., New York.
 Warner Co., Chas., Wilmington, Del.

Contractors' (General)

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
 American Concrete Caisson Co., National State Bank
 Bldg., Troy, N. Y.
 American Concrete Steel Co., Newark, N. J.
 Asserson, Henry R., 59 Pearl St., New York.
 Atlantic Gulf & Pacific Co., Park Row Bldg., New York.
 Baltimore Bridge Co., Baltimore, Md.
 Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
 Bradley & Co., Walter, Fulton, N. Y.
 Canton Bridge Co., Canton, Ohio.
 Champion Bridge Co., Wilmington, Ohio.
 Chicago Bridge & Iron Works, 105th & Throop Sts.,
 Chicago, Ill.
 Concrete Steel Engineering Co., Park Row Bldg., N. Y.
 Decatur Bridge Co., Decatur, Ill.
 Des Moines Bridge & Iron Co., Des Moines, Ia.
 Dodge, J. M. Co., Nicetown, Philadelphia, Pa.
 Field Barker & Underwood, Inc., Arcade Bldg., Phila-
 delphia, Pa.

Mention "The Engineering Record" when writing.

Foundation Co., 115 Broadway, New York.
 Freeborn Engineering & Construction Co., Scarritt Bldg.,
 Kansas City, Mo.
 Geisel Construction Co., 620 Chestnut St., St. Louis, Mo.
 Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
 Hennebique Construction Co., 1170 Broadway, N. Y.
 Heyworth, James O., Harvester Bldg., Chicago, Ill.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Kidde, Walter, 140 Cedar St., New York.
 McCormick & Co., 14 S. Broad St., Philadelphia, Pa.
 Memphis Bridge Co., Memphis, Tenn.
 New York Continental Jewell Filtration Co., Mills
 Bldg., New York.
 O'Rourke Engineering Construction Co., 345 Fifth Ave.,
 New York.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Contracting Co., Publication Bldg., N. Y.
 Pneumatic Caisson Co., National State Bank Bldg.,
 Troy, N. Y.
 Pulsometer Steam Pump Co., 17 Battery Pl., New York.
 Raymond Concrete Pile Co., 135 Adams St., Chicago, Ill.
 Rockport Granite Co., Rockport, Mass.
 Scherzer Rolling Lift Bridge Co., Monadnock Blk., Chi-
 cago, Ill.
 Standard Concrete-Steel Co., 32d St. & E. R., New York.
 Stewart-Karbaugh-Shanley Co., 44th St., & Fifth Ave.,
 New York.
 Sundstrom & Stratton Co., 90 West St., New York.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Wardwell, Frederick S., Stamford, Conn.
 Warren Construction Co., Warren, Ohio.
 White & Co., J. G., Inc., 43 Exchange Pl., New York.
 Wilkins, Grant, Atlanta, Ga.
 Wisconsin Bridge & Iron Co., North Milwaukee, Wis.

Conveying Machinery

Allis-Chalmers Co., Milwaukee, Wis.
 Atlas Dryer Co., Cleveland, Ohio.
 Bartlett, C. O., & Snow Co., Cleveland, Ohio.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Burrell Mfg. Co., Bradley, Ill.
 Carson Trench Machine Co., 16 Dorrance St., Bos-
 ton, Mass.
 Chain Belt Co., Milwaukee, Wis.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.
 Climax Road Machine Co., Marathon, N. Y.
 Conveying Weigher Co., 92 West St., New York.
 Cresson Co., Geo. V., Allegheny Ave., W. 17th St.,
 Philadelphia, Pa.
 Dodge Co., J. M., Nicetown, Philadelphia, Pa.
 Foote Concrete Machinery Co., 184 La Salle St., Chi-
 cago, Ill.
 Heyl & Patterson, Inc., Pittsburg, Pa.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Lambert Hoisting Engine Co., Newark, N. J.
 Longenecker & Co., Chas., 150 Nassau St., New York.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.

Mention "The Engineering Record" when writing.

National Equipment Co., 276 Dearborn St., Chicago, Ill.
 New York Cableway & Engineering Co., 1 Rector St.,
 New York.
 Northern Engineering Works, Detroit, Mich.
 Peerless V-Belt Co., 215 S. Clinton St., Chicago.
 Power & Mining Machinery Co., Cudahy, Wis.
 Robins Conveying Belt Co., Passaic, N. J.
 Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
 Snare & Triest Co., 143 Liberty St., New York.
 Tidewater Iron W'ks, 8th & Jefferson Sts., Hoboken, N.J.
 Union Iron Works, Hoboken, N. J.
 Vulcan Iron Works, Wilkes-Barre, Pa.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
 Youngstown Car Mfg. Co., Youngstown, Ohio.

Conveyors (Automatic Power)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Dodge Co., J. M., Nicetown, Philadelphia, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Hunt Co., C. W., West New Brighton, N. Y.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Conveyors (Belt)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Burrell Mfg. Co., Bradley, Ill.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Conveying Weigher Co., 92 West St., New York.
 Dodge Co., J. M., Nicetown, Philadelphia, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 305 Old Col-
 ony Bldg., Chicago, Ill.
 National Belting Co., Lawrence, Mass.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Nims Concrete Machinery Co., Philadelphia; Jefferson
 Co., N. Y.
 Robins Conveying Belt Co., Passaic, N. J.
 Traylor Engineering Co., Allentown, Pa.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Conveyors (Cable)

Broderick & Bascom Rope Co., 805 N. Main St., St.
 Louis, Mo.
 Bartlett C. O., & Snow Co., Cleveland, Ohio.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Carson Trench Machine Co., 16 Dorrance St., Bos-
 ton, Mass.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Dodge Co., J. M., Nicetown, Philadelphia, Pa.
 Hunt Co., C. W., West New Brighton, N. Y.
 Lambert Hoisting Engine Co., Newark, N. J.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 New York Cableway & Engineering Co., 1 Rector St.,
 New York.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Mention "The Engineering Record" when writing.

Conveyors (Chain)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Burrell Mfg. Co., Bradley, Ill.
Chain Belt Co., Milwaukee, Wis.
Dodge Co., J. M., Nicetown, Philadelphia, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Power & Mining Machinery Co., Cudahy, Wis.
Traylor Engineering Co., Allentown, Pa.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Conveyors (Trench Excavating)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Carson Trench Machine Co., 16 Dorrance St., Boston, Mass.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Kingston Mfg. Co., Wilkes-Barre, Pa.
Lambert Hoisting Engine Co., Newark, N. J.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St., New York.

Cooling Towers

Alberger Pump Co., 95 Liberty St., New York.
Dean Bros. Steam Pump Co., Indianapolis, Ind.
Graver, Wm., Tank Works, East Chicago, Ind.
Wheeler, C. H. Mfg. Co., 18th & Lehigh Ave., Philadelphia, Pa.

Copper

Badger, E. B., & Sons Co., 75 Pitts St., Boston, Mass.
Irwin, Thos. W., Mfg. Co., N. S., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.

Cordage

American Mfg. Co., 65 Wall St., New York.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
National Equipment Co., 276 Dearborn St., Chicago, Ill.

Cornices

Berger Mfg. Co., Canton, Ohio.
Irwin, Thos. W., Mfg., Co., N. S. Pittsburg, Pa.
Lupton's Sons Co., David, Allegheny Ave., & Witte St., Philadelphia, Pa.
Mullins Co., W. H., Salem, Ohio.

Corporation Cocks

National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
Smith, A. P., Mfg. Co., Newark, N. J.
Water Works Equipment Co., 50 Church St., N. Y.

Couplings (Flange)

Allis-Chalmers Co., Milwaukee, Wis.
American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.

Mention "The Engineering Record" when writing.

Burrell Mfg. Co., Bradley, Ill.
 Chain Belt Co., Milwaukee, Wis.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Pittsburgh Mfg. Co., Pittsburg, Pa.
 Smith, A. P., Mfg. Co., Newark, N. J.
 Smith Co., S. Morgan, York, Pa.

Couplings (Friction Clutch)

Allis-Chalmers Co., Milwaukee, Wis.
 Burrell Mfg. Co., Bradley, Ill.
 Chain Belt Co., Milwaukee, Wis.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Couplings (Large Pipe)

American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.

Couplings (Pipe)

American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Moran Flexible Steam Joint Co., Louisville, Ky.
 Scully Steel & Iron Co., Chicago, Ill.

Couplings (Shaft)

Chain Belt Co., Milwaukee, Wis.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Smith Co., S. Morgan, York, Pa.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Cranes and Hoists

Allis-Chalmers Co., Milwaukee, Wis.
 American Hoist & Derrick Co., St. Paul, Minn.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Dodge Co., J. M., Nicetown, Philadelphia, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Independent Pneumatic Tool Co., Thor Bldg., Chicago.
 Ingersoll-Rand Co., 11 Broadway, New York.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 New York Cableway & Engineering Co., 1 Rector St., New York.
 Northern Engineering Works, Detroit, Mich.
 Scully Steel & Iron Co., Chicago, Ill.
 Shadegg Engine Co., 315 Third St. So. Minneapolis.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Cranes (Air)

Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
Northern Engineering Works, Detroit, Mich.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cranes (Derrick)

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Bucyrus Co., S. Milwaukee, Wis.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Conklin, H. O., Equipment Co., Harvey, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hayward Co., 50 Church St., New York.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Lambert Hoisting Engine Co., Newark, N. J.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
Williams, G. H., Co., Cleveland, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cranes (Electric)

Brown Hoisting Machinery Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Longenecker & Co., Chas., 150 Nassau St., New York.
Northern Engineering Works, Detroit, Mich.
Ransome Concrete Machinery Co., Dunellen, N. J.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cranes (Hand-Power)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Chisholm & Moore Mfg. Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Whitehead & Kales Iron Works, Detroit, Mich.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cranes (Hydraulic)

Brown Hoisting Machinery Co., Cleveland, Ohio.
Northern Engineering Works, Detroit, Mich.
Watson-Stillman Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Cranes (Jib)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Bucyrus Co., So. Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Whitehead & Kales Iron Works, Detroit, Mich.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cranes (Locomotive)

American Hoist & Derrick Co., St. Paul, Minn.
American Ship Windlass Co., Providence, R. I.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Engineering Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Conklin, H. O., Equipment Co., Harvey, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Dodge Co., J. M., Nicetown, Philadelphia, Pa.
Hough, Wm. B., Co., Monadnock Bldg., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Longenecker & Co., Chas., 150 Nassau St., New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Mead-Morrison Mfg. Co., Cambridge, Mass.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
U. S. Wind Engine & Pump Co., 28 Water St., Batavia, Ill.
Williams, G. H. Co., Cleveland, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cranes (Traveling)

Bartlett C. O. & Snow Co., Cleveland, Ohio.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Engineering Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hayward Co., 50 Church St., New York.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Ransome Concrete Machinery Co., Dunellen, N. J.
Whitehead & Kales Iron Works, Detroit, Mich.
Williams, G. H., Co., Cleveland, Ohio.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Cranes (Wrecking)

Browning Engineering Co., Cleveland, Ohio.

Crayons (Marking)

Zelnicker Supply Co., Walter A., St. Louis, Mo.

Creosote

Barrett Mfg. Co., 17 Battery Pl., New York.

Mention "The Engineering Record" when writing.

Creosoting

American Creosoting Co., 29 Broadway, New York.
Barber Asphalt Paving Co., Maurer, N. J.
Barber Asphalt Paving Co., Land Title Bldg., Philadelphia, Pa.
Carbolineum Wood Preserving Co., 349 West Broadway, New York.
U. S. Wood Preserving Co., 29 Broadway, New York.

Creosoting Cylinders

Allis-Chalmers Co., Milwaukee, Wis.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Graver, Wm., Tank Works, East Chicago, Ind.
Petroleum Iron Works, Sharon, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Traylor Engineering Co., Allentown, Pa.

Crossings, Railway (See Frogs and Switches)

Crusher Castings (Rock)

Abenague Machine Works, Westminster Sta., Vt.
Allis-Chalmers Co., Milwaukee, Wis.
Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Climax Road Machine Co., Marathon, N. Y.
Coldwell-Wilcox Co., Newburgh, N. Y.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
Janney, Steinmetz & Co., Philadelphia, Pa.
Longenecker & Co., Chas., 150 Nassau St., New York.
Power & Mining Machinery Co., Cudahy, Wis.
Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Traylor Engineering Co., Allentown, Pa.

Crushers (Jaw)

Allis-Chalmers Co., Milwaukee, Wis.
Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Bartlett C. O., & Snow Co., Cleveland, Ohio.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Burrell Mfg. Co., Bradley, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Chicago Concrete Machinery Co., 335 Old Colony Bldg., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Coldwell-Wilcox Co., Newburgh, N. Y.
Conklin, H. O., Equipment Co., Harvey, Ill.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
Galion Iron Works Co., Galion, Ohio.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Janney, Steinmetz & Co., Philadelphia, Pa.
Kent Mill Co., 170 Broadway, New York.
Koehring Machine Co., Milwaukee, Wis.
Longenecker & Co., Chas., 150 Nassau St., New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Power & Mining Machinery Co., Cudahy, Wis.

Mention "The Engineering Record" when writing.

Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
 Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
 Sproul, Harvey B., Peekskill, N. Y.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Traylor Engineering Co., Allentown, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Universal Road Machinery Co., 120 Liberty St., N. Y.
 Williams Pat. Crusher & Pulverizer Co., Old Colony Bldg., Chicago, Ill.

Crushers (Gyratory)

Allis-Chalmers Co., Milwaukee, Wis.
 Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
 Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Bradley Pulverizer Co., 92 State St., Boston, Mass.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Longenecker & Co., Chas. 150 Nassau St., New York.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Power & Mining Machinery Co., Cudahy, Wis.
 Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
 Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Traylor Engineering Co., Allentown, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Crushing Rolls

Allis-Chalmers Co., Milwaukee, Wis.
 Bartlett C. O., & Snow Co., Cleveland, Ohio.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Conklin H. O., Equipment Co., Harvey, Ill.
 Cresson, Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
 Hunt Co., C. W., West New Brighton, N. Y.
 Kent Mill Co., 170 Broadway, New York.
 Longenecker & Co., Chas., 150 Nassau St., New York.
 Power & Mining Machinery Co., Cudahy, Wis.
 Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Traylor Engineering Co., Allentown, Pa.
 Vulcan Iron Works, Wilkes-Barre, Pa.

Culverts

Besser Mfg. Co., Alpena, Mich.
 Climax Road Machine Co., Marathon, N. Y.
 Decatur Bridge Co., Decatur, Ill.
 Evens & Howard Fire Brick Co., St. Louis, Mo.
 Galion Iron Works Co., Galion, Ohio.
 Graver, Wm., Tank Works, East Chicago, Ind.
 Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.,
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Lock Joint Pipe Co., 165 Broadway, New York.
 Parmley, Walter C., Everett Bldg., Union Sq., N. Y.
 Reinforced Concrete Pipe Co., Jackson, Mich.
 Standard Cast Iron Pipe & Foundry Co., Bristol, Pa.
 Trussed Concrete Steel Co., Trussed Concrete Bldg., Detroit, Mich.

Mention "The Engineering Record" when writing.

Cupolas

Evens & Howard Fire Brick Co., St. Louis, Mo.
Northern Engineering Works, Detroit, Mich.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Traylor Engineering Co., Allentown, Pa.

Curb Boxes (Meter)

Douglas, W. & B., Middletown, Conn.

Curb (Steel)

Carnegie Steel Co., Pittsburg, Pa.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
Steel Protected Concrete Co., Real Estate Trust Bldg.,
Philadelphia, Pa.

Cutters (Rod and Bolt)

Buffalo Forge Co., Buffalo, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Scully Steel & Iron Co., Chicago, Ill.

Cylinders

Badger, E. B., & Sons Co., 75 Pitts St., Boston, Mass.
Builders' Iron Foundry, Providence, R. I.
Du Bois Iron Works, Du Bois, Pa.
East Jersey Pipe Co., 90 West St., New York.
Flint & Walling Mfg. Co., Kendallville, Ind.
Graver, Wm., Tank Works, East Chicago, Ind.
Huron Steel & Iron Co., Norwalk, Ohio.
Morris Co., I. P., Philadelphia, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Power & Mining Machinery Co., Cudahy, Wis.

Dams (Concrete)

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
Ambursen Hydraulic Construction Co., 176 Federal St.,
Boston, Mass.
American Concrete Caisson Co., Nat'l State Bank Bldg.,
Troy, N. Y.
Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
Foundation Co., 115 Broadway, New York.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Pennsylvania Contracting Co., Publication Bldg., N. Y.
Pneumatic Caisson Co., National State Bank Bldg.,
Troy, N. Y.
Trussed Concrete Steel Co., Trussed Concrete Bldg.,
Detroit, Mich.
White & Co., J. G., Inc., 43 Exchange Pl., New York.

Derails

Indianapolis Switch & Frog Co., Springfield, Ohio.
Wiener Co., Ernst, Fulton & Church Sts., New York.

Derrick Crabs

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clyde Iron Works, Duluth, Minn.
Conklin, H. O., Equipment Co., Harvey, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Machinery Co., Niagara Falls, N. Y.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.

Mention "The Engineering Record" when writing.

McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Terry & Tench Co., 131st St. & Lexington Ave., N. Y.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Derrick Irons

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clyde Iron Works, Duluth, Minn.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory, S., Mfg. Co., Bangor, Pa.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Hayward Co., 50 Church St., New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Lambert Hoisting Engine Co., Newark, N. J.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Terry & Tench Co., 131st St. & Lexington Ave., N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Williams, G. H., Co., Cleveland, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Derricks and Derrick Fittings

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Browning, Victor R., & Co., Cleveland, Ohio.
Carnegie Steel Co., Pittsburg, Pa.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Clyde Iron Works, Duluth, Minn.
Conklin, H. O., Equipment Co., Harvey, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory, S., Mfg. Co., Bangor, Pa.
Haiss, Geo., Mfg. Co., 138th St. & Rider Ave., N. Y.
Hayward Co., 50 Church St., New York.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Lambert Hoisting Engine Co., Newark, N. J.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
McCoy Co., Henry J., 67 Dey St., New York.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St., New York.
Northern Engineering Works, Detroit, Mich.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Terry & Tench Co., 131st St. & Lexington Ave., N. Y.

Mention "The Engineering Record" when writing.

Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Williams, G. H., Co., Cleveland, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Derricks (Pile Driving)

American Hoist & Derrick Co., St. Paul, Minn.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory, S., Mfg. Co. Bangor, Pa.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Lambert Hoisting Engine Co., Newark, N. J.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St., New York.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
Williams, G. H. Co., Cleveland, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Derricks (Steam)

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Clyde Iron Works, Duluth, Minn.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hayward Co., 50 Church St., New York.
Lambert Hoisting Engine Co., Newark, N. J.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St., New York.
Terry & Tench Co., 131st St. & Lexington Ave., N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Williams, G. H., Co., Cleveland, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Dinkeys (See Locomotives, Industrial and Light)

Distillers

American Ship Windlass Co., Providence, R. I.
Williamson Bros. Co., Philadelphia, Pa.

Ditching Machinery, Steam Shovels, Etc. (See Excavating Machinery.)

Doors (Rolling)

Schreiber & Sons Co., L., Cincinnati, Ohio.
Wilson Mfg. Co., Jas. G., 3 West 29th St., New York.

Draft Dampers

Sturtevant, B. F., Co., Hyde Park, Mass.

Drafting Instruments and Supplies (See Engineers' and Surveyors' Instruments and Supplies)

Mention "The Engineering Record" when writing.

Dredging Machinery

Atlantic Equipment Co., 30 Church St., New York.
Atlantic, Gulf & Pacific Co., Park Row Bldg., N. Y.
Bucyrus Co., So. Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Cresson Co., Geo. V., Allegheny Ave., W of 17th St., Philadelphia, Pa.
Hayward Co., 50 Church St., New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Hobbs-Ives, Equipment & Machinery Co., Seaboard Bank, Norfolk, Va.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Lambert Hoisting Engine Co., Newark, N. J.
Lawrence Machine Co., Lawrence, Mass.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Marion Steam Shovel Co., Marion, Ohio.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Morris Machine Works, Baldwinsville, N. Y.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Osgood Dredge Co., Albany, N. Y.
Parsons Co., G. W., Observatory Bldg., Des Moines, Ia.
Shadegg Engine Co., 315 Third St. So., Minneapolis.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
Walker, John L., Mobile, Ala.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Drift Pins

Baltimore Bridge Co., Baltimore, Md.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Terry & Tench Co., 131st St. & Lexington Ave., N. Y.

Drilling Machines (Blast-Hole)

American Well Works, Aurora, Ill.
Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Keystone Driller Co., Beaver Falls, Pa.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
Sweeney & Gray, 81-5 Sixth St., Long Island City, N. Y.

Drilling Rope

American Mfg. Co., 65 Wall St., New York.
American Well Works, Aurora, Ill.
Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Sweeney & Gray, 81-5 Sixth St., Long Island City, N. Y.

Drills

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.

Mention "The Engineering Record" when writing.

Fairbanks Co., Broome & Lafayette Sts., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
Scully Steel & Iron Co., Chicago, Ill.
Star Expansion Bolt Co., 147 Cedar St., New York.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Drills (Diamond Core)

Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
Terry Core Drill Co., 50 Church St., New York.

Drills (Diamondless Core)

American Well Works, Aurora, Ills.
Ingersoll-Rand Co., 11 Broadway, New York.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
Terry Core Drill Co., 50 Church St., New York.

Drills (Electric)

Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
Scully Steel & Iron Co., Chicago, Ill.

Drills (Electric-Air) Rock

Ingersoll-Rand Co., 11 Broadway, New York.
Scully Steel & Iron Co., Chicago, Ill.

Drills (Pneumatic)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
Hardsocg Co., Martin, Allegheny, Pa.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Drills (Rock)

American Well Works, Aurora, Ill.
Austin Mfg. Co., 307 Dearborn St., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Hardsocg Co., Martin, Allegheny, Pa.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Drums (Hoisting)

Allis-Chalmers Co., Milwaukee, Wis.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
East Jersey Pipe Co., 90 West St., New York.
Fernyak & Stavenik Machine Co., Mansfield, Ohio.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.

Mention "The Engineering Record" when writing.

Lambert Hoisting Engine Co., Newark, N. J.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Morris Co., I. P., Philadelphia, Pa.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Power & Mining Machinery Co., Cudahy, Wis.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Williamson Bros. Co., Philadelphia, Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Dryers (Cement, Asphalt and Sand)

American Process Co., 68 William St., New York.
Atlas Dryer Co., Cleveland, Ohio.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Cummer & Son Co., F. D., Cleveland, Ohio.
Fuller Engineering Co., Allentown, Pa.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Lake Erie Engineering Works, Buffalo, N. Y.
Petroleum Iron Works, Sharon, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Ruggles-Coles Engineering Co., 39 Cortlandt St., N. Y.
Tidewater Iron W'ks, 8th & Jefferson Sts., Hoboken, N.J.
Traylor Engineering Co., Allentown, Pa.

Drying Apparatus (Hot-Blast)

American Blower Co., Detroit, Mich.
American Process Co., 68 William St., New York.
Atlas Dryer Co., Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
New York Blower Co., Stewart Ave., Chicago, Ill.
Power & Mining Machinery Co., Cudahy, Wis.
Ruggles-Coles Engineering Co., 39 Cortlandt St., N. Y.
Stardevant, B. F., Co., Hyde Park, Mass.

Dump Boxes

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Eagle Wagon Works, Auburn, New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Troy Wagon Works Co., S. Walnut St., Troy, Ohio.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Dump Wagons (See Wagons—Contractors)

Dust Collectors

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
New York Blower Co., Stewart Ave., Chicago, Ill.
Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
Stardevant, B. F., Co., Hyde Park, Mass.

Dynamite

Ætna Powder Co., 143 Dearborn St., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Du Pont de Nemours, E. I., Powder Co., Wilmington.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Keystone Powder Mfg. Co., Emporium, Pa.

Mention "The Engineering Record" when writing.

National Powder Co., 200 Fifth Ave., New York.
Sinnamahoning Powder Mfg. Co., Emporium, Pa.
Trojan Powder Co., 60 Wall St., New York.

Dynamos

Burke Electric Co., Erie, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 121 S. 11th St., Phila., Pa.
General Electric Co., Schenectady, N. Y.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Sturtevant, B. F., Co., Hyde Park, Mass.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Economizers (See Fuel Economizers)

Ejectors

American Injector Co., Detroit, Mich.
Lunkenheimer Co., Cincinnati, Ohio.

Electric Bells

Ostrander & Co., W. R., 22 Dey St., New York.

Electric Trucks

Hunt Co., C. W., West New Brighton, N. Y.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Electrical Supplies

General Electric Co., Schenectady, N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Elevator Inclosures

Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Star Expansion Bolt Co., 147 Cedar St., New York.
Whitehead & Kales Iron Works, Detroit, Mich.

Elevator Repairs

Goldschmidt Thermit Co., 90 West St., New York.

Elevators

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Northern Engineering Works, Detroit, Mich.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Traylor Engineering Co., Allentown, Pa.
Vulcan Iron Works, Wilkes-Barre, Pa.

Elevators (Bucket)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Burrell Mfg. Co., Bradley, Ill.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.

Mention "The Engineering Record" when writing.

Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Longenecker & Co., Chas., 150 Nassau St., New York.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Power & Mining Machinery Co., Cudahy, Wis.
 Smith, T. L. Co., 305 Old Colony Bldg., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Traylor Engineering Co., Allentown, Pa.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
 Youngstown Car Mfg. Co., Youngstown, Ohio.

Elevators, Builders'

American Hoist & Derrick Co., St. Paul, Minn.
 Burrell Mfg. Co., Bradley, Ill.
 Byers, Jno. F., Machine Co., Ravenna, Ohio.
 Chicago Concrete Machinery Co., 335 Old Colony Bldg., Chicago, Ill.
 Contractors' Plant Mfg. Co., Buffalo, N. Y.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.

Engineering Books (See Books, Engineering and Technical)

Engineering Reports

Albright & Mebus, Land Title Bldg., Philadelphia, Pa.
 American Concrete Caisson Co., Nat'l State Bank Bldg., Troy, N. Y.
 American Engineering & Construction Co., Drexel Bldg., Philadelphia, Pa.
 Baldwin, William J., World Bldg., New York.
 Bryan, William H., Lincoln Trust Bldg., St. Louis, Mo.
 Fuller Engineering Co., Allentown, Pa.
 Grunsky, C. E., 45 Broadway, New York.
 Kidde, Walter, 140 Cedar St., New York.
 Potts, Clyde, 17 Battery Pl., New York.
 Schott, W. H., 125 Monroe St., Chicago, Ill.
 White & Co., J. G., Inc., 43 Exchange Pl., New York.

Engineers and Contractors

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
 Albright & Mebus, Land Title Bldg., Philadelphia, Pa.
 Alvord, John W., 127 Hartford Bldg., Chicago, Ill.
 Ambursen Hydraulic Construction Co., 176 Federal St., Boston, Mass.
 American Bridge Co., of N. Y., 30 Church St., N. Y.
 American Concrete Caisson Co., Nat'l State Bank Bldg., Troy, N. Y.
 American Concrete Steel Co., Newark, N. J.
 American Engineering & Construction Co., Drexel Bldg., Philadelphia, Pa.
 American Pipe Mfg. Co., 112 N. Broad St., Philadelphia.
 Arnold Co., 181 La Salle St., Chicago, Ill.
 Asserson, Henry R., 59 Pearl St., New York.
 Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.

Mention "The Engineering Record" when writing.

Atlas Dryer Co., Cleveland, Ohio.
 Baltimore Bridge Co., Baltimore, Md.
 Barbour, F. A., Tremont Bldg., Boston, Mass.
 Barrus, Geo. H., 12 Pemberton Sq., Boston, Mass.
 Bates, Putnam A., 42 Broadway, New York.
 Boycott, G. W. M., 19 Old Queen St., London, Eng.
 Breite, W. W., Clunie Bldg., San Francisco, Cal.
 Brill, George M., 1134 Marquette Bldg., Chicago, Ill.
 Bryan, William H., Lincoln Trust Bldg., St. Louis, Mo.
 Buff & Buff Mfg. Co., Boston, Mass.
 Byllesby & Co., H. M., American Trust Bldg., Chicago, Ill.
 Cameron Septic Tank Co., Monadnock Blk., Chicago, Ill.
 Chain Belt Co., Milwaukee, Wis.
 Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
 City Wastes Disposal Co., 156 Fifth Ave., New York.
 Clinton Bridge & Iron Works, Clinton, Ia.
 Cole, John A. & Edw. S., 220 Broadway, New York.
 Conard, Wm. R., Burlington, N. J.
 Concrete Steel Co., 29 Broadway, New York.
 Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
 Dawley, Edwin P., Banigan Bldg., Providence, R. I.
 Decatur Bridge Co., Decatur, Ill.
 Dodge Co., J. M., Nicetown, Philadelphia, Pa.
 D'Olier Engineering Co., 121 S. 11th St., Philadelphia, Pa.
 Fanning, J. T., 330 Hennepin Ave., Minneapolis, Minn.
 Farrington, Harvey, 45 Broadway, New York.
 Ferro Concrete Construction Co., Cincinnati, Ohio.
 Field, Barker & Underwood, Inc., Arcade Bldg., Philadelphia, Pa.
 Field, William P., Prudential Bldg., Newark, N. J.
 Foundation Co., 115 Broadway, New York.
 Freeborn Engineering & Construction Co., Scarritt Bldg., Kansas City, Mo.
 Fuertes, James H., 140 Nassau St., New York.
 Fuller Engineering Co., Allentown, Pa.
 Fuller, Frank L., 12 Pearl St., Boston, Mass.
 Gray, Samuel M., Weybosset St., Providence, R. I.
 Griffiths Iron Wks Co., 23d & Papin Sts., St. Louis, Mo.
 Grunsky, C. E., 45 Broadway, New York.
 Hallett, Nelson A., 1 Ashburton Pl., Boston, Mass.
 Hazelhurst & Anderson, Candler Bldg., Atlanta, Ga.
 Hazen, Allen, 103 Park Ave., New York.
 Hering & Fuller, 170 Broadway, New York.
 Hermann, Leib, 11 Broadway, New York.
 Hill, Nicholas S., Jr., 100 William St., New York.
 Hill, W. R., 53 State St., Albany, N. Y.
 Hirschberg-Williams-Washburn Co., 410 Stephenson Bldg., Milwaukee, Wis.
 Iowa Engineering Co., Clinton, Ia.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Kidde, Walter, 140 Cedar St., New York.
 Kiersted, Wynkoop, Water Works Bldg., Kansas City, Mo.
 Knight & Hopkins, Rome, N. Y.
 Leavitt, Chas. W., Jr., 220 Broadway, New York.
 Lederle & Provost, 39-41 W. 38th St., New York.
 Lewis & Kitchen, 433 Wabash Ave., Chicago, Ill.
 Longenecker & Co., Chas., 150 Nassau St., New York.
 Lyndon, Lamar, 2 Rector St., New York.

Mention "The Engineering Record" when writing.

Maury, Dabney H., 129 N. Jefferson Ave., Peoria, Ill.
 McCormick & Co., 14 S. Broad St., Philadelphia, Pa.
 McEnerney, C. L., Balboa Bldg., San Francisco, Cal.
 Metcalf & Eddy, 14 Beacon St., Boston, Mass.
 Meyer, Henry C., Jr., 1 Madison Ave., New York.
 New York Blower Co., Stewart Ave., Chicago, Ill.
 O'Rourke Engineering Construction Co., 345 Fifth Ave.
 Osbun Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Owen, James, 196 Market St., Newark, N. J.
 Phillips, Richard H., Security Bldg., St. Louis, Mo.
 Pneumatic Caisson Co., National State Bank Bldg.,
 Troy, N. Y.
 Potter, Alexander, 114 Liberty St., New York.
 Potts, Clyde, 17 Battery Pl., New York.
 Raymond Concrete Pile Co., 135 Adams St., Chicago, Ill.
 Riggs & Sherman Co., The Nasby, Toledo, Ohio.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Rogers & Latimer, 5 East 42d St., New York.
 Scherzer Rolling Lift Bridge Co., Monadnock Blk.,
 Chicago, Ill.
 Schott, W. H., 125 Monroe St., Chicago, Ill.
 Shankland, E. C. & R. M., The Rookery, Chicago, Ill.
 Skene, Frederick, 149 Broadway, New York.
 Standard Concrete Steel Co., 32d St. & E. R., New York.
 Stewart-Karbaugh-Shanley Co., 44th St. & Fifth Ave.,
 New York.
 Stone & Webster Engineering Corporation, Stone &
 Webster Bldg., Boston, Mass.
 Sundstrom & Stratton Co., 90 West St., New York.
 Sweeney & Gray, 81-85 Sixth St., Long Island City, N. Y.
 Thompson, Morgan H., 59 W. 65th St., New York.
 Tribus & Massa, 86 Warren St., New York.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Wallace & Co., Joseph H., Temple Court Bldg., N. Y.
 Wardwell, Frederick S., Stamford, Conn.
 Watson & Co., Wilbur J., Citizens Bldg., Cleveland.
 Webster, A. L., 43-49 Exchange Pl., New York.
 Weston, Edmond B., 86 Weybosset St., Providence,
 R. I.
 Weston, Robert Spurr, 14 Beacon St., Boston, Mass.
 Whipple, Geo. C., 103 Park Ave., New York.
 Wilkins Grant, Atlanta, Ga.
 Wilkins Co., William G., Westinghouse Bldg., Pitts-
 burg, Pa.
 Willoughby, A. B., The Bourse, Philadelphia, Pa.
 Wilson, Harris & Richards, Drexel Bldg., Philadelphia.
 Wingfield, Nisbet, N. 811 Ellis St., Augusta, Ga.
 Wisconsin Bridge & Iron Co., No. Milwaukee, Wis.
 Wise & Watson, Passaic, N. J.

Engineers' and Surveyors' Instruments and Supplies

Ainsworth, Wm. & Sons, Denver, Col.
 American Drafting Furniture Co., Rochester, N. Y.
 Architects & Engineers Supply Co., 1010 Grand Ave.,
 Kansas City, Mo.
 Barron, Jas. S., 133 Franklin St., New York.
 Bausch & Lomb Optical Co., Rochester, N. Y.
 Berger, C. L. & Sons, 37 Williams St., Boston, Mass.
 Buff & Buff Mfg. Co., Boston, Mass.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Fritz Mfg. Co., Grand Rapids, Mich.

Mention "The Engineering Record" when writing.

Hanna Mfg. Co., Troy, N. Y.
 Iszard-Warren Co., Inc., 1122 Vine St., Philadelphia, Pa.
 Keuffel & Esser, Hoboken, N. J.
 Kolesch & Co., 138 Fulton St., New York.
 Lufkin Rule Co., Saginaw, Mich.
 Prince, L. M., 108 W. 4th St., Cincinnati, Ohio.
 Surveyors' Instrument Exchange Co., P. O. Box 943,
 Philadelphia, Pa.
 White & Co., J. G., Inc., 43 Exchange Pl., New York.
 Wiebusch & Hilger, Ltd., 106 Lafayette St., New York.
 Williams, Brown & Earle, 918 Chestnut St., Phila., Pa.
 Youngstown Car Mfg. Co., Youngstown, Ohio.

Engines (Blowing)

Allis-Chalmers Co., Milwaukee, Wis.
 Dean Bros., Steam Pump Co., Indianapolis, Ind.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Ingersoll-Rand Co., 11 Broadway, New York.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Morris Co., I. P., Philadelphia, Pa.
 Northern Engineering Works, Detroit, Mich.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wisconsin Engine Co., Corliss, Wis.

Engines (Compressed Air)

Allis-Chalmers Co., Milwaukee, Wis.
 American Well Works, Aurora, Ill.
 Dake Engine Co., Grand Haven, Mich.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Independent Pneumatic Tool Co., Thor Bldg., Chicago.
 Ingersoll-Rand Co., 11 Broadway, New York.
 International Steam Pump Co., 115 B'way, New York.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Northern Engineering Works, Detroit, Mich.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wisconsin Engine Co., Corliss, Wis.

Engines (Corliss)

Allis-Chalmers Co., Milwaukee, Wis.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Epping-Carpenter Co., Pittsburg, Pa.
 International Steam Pump Co., 115 B'way, New York.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Vulcan Iron Works, Wilkes-Barre, Pa.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wisconsin Engine Co., Corliss, Wis.

Engines (Deep-Well Pumping)

American Well Works, Aurora, Ill.
 Atlantic Hydraulic Machinery Co., Drexel Bldg.,
 Philadelphia, Pa.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Dean Bros., Steam Pump Co., Indianapolis, Ind.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 International Steam Pump Co., 115 B'way, New York.
 Keystone Driller Co., Beaver Falls, Pa.
 Mietz, August, 128 Mott St., New York.
 Sweeney & Gray, 81-85 Sixth St., Long Island City, N.Y.

Mention "The Engineering Record" when writing.

Union Steam Pump Co., Battle Creek, Mich.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Westinghouse Machine Co., Pittsburg, Pa.

Engines (Gas, Gasoline, Oil)

Abenague Machine Works, Westminster Sta., Vt.
Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Buckeye Engine Co., Salem, Ohio.
Buffalo Concrete Mixer Co., Builders Exchange, Buffalo, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Conklin, H. O., Equipment Co., Harvey, Ill.
Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
Du Bois Iron Works, Du Bois, Pa.
Erie Pump & Engine Co., Erie, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Fernyak & Stavenik Machine Co., Mansfield, Ohio.
Flint & Walling Mfg. Co., Kendallville, Ind.
Foos Gas Engine Co., Springfield, Ohio.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
Hildreth Mfg. Co., 703 Sheridan St., Lansing, Mich.
Huron Steel & Iron Co., Norwalk, Ohio.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
International Steam Pump Co., 115 B'way, New York.
Lawrence Machine Co., Lawrence, Mass.
Mietz, August, 128 Mott St., New York.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
National Meter Co., 84-86 Chambers St., New York.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Power & Mining Machinery Co., Cudahy, Wis.
Shadegg Engine Co., 315 Third St., So. Minneapolis.
Standard Scale & Supply Co., 52 S. Canal St., Chicago, Ill.
Struthers-Wells Co., Warren, Pa.
Thompson, J., & Sons Mfg. Co., Beloit, Wis.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Watson-Stillman Co., 50 Church St., New York.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Westinghouse Machine Co., Pittsburg, Pa.
Wisconsin Engine Co., Corliss, Wis.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Engines (High Duty—Pumping)

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Dow, Geo. E., Pumping Engine Co., San Francisco.
Epping-Carpenter Co., Pittsburg, Pa.
International Steam Pump Co., 115 B'way, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Lawrence Machine Co., Lawrence, Mass.
Mietz, August, 128 Mott St., New York.
Morris Co., I. P., Philadelphia, Pa.
Prescott, Fred. M., Steam Pump Co., Milwaukee, Wis.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Thompson, J., & Sons Mfg. Co., Beloit, Wis.
Union Steam Pump Co., Battle Creek, Mich.
Westinghouse Machine Co., Pittsburg, Pa.
Wisconsin Engine Co., Corliss, Wis.

Mention "The Engineering Record" when writing.

Engines (Hoisting)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
American Ship Windlass Co., Providence, R. I.
Bond, Harold L., Co., 140 Pearl St., Boston, Mass.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clyde Iron Works, Duluth, Minn.
Conklin, H. O., Equipment Co., Harvey, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Du Bois Iron Works, Du Bois, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Fernityak & Stavenik Machine Co., Mansfield, Ohio.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
Haiss, Geo., Mfg. Co., 138th St. & Rider Ave., N. Y.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Lambert Hoisting Engine Co., Newark, N. J.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Longenecker & Co., Chas., 150 Nassau St., N. Y.
McCoy Co., Henry J., 67 Dey St., New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Mietz, August, 128 Mott St., New York.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St., New York.
Ransome Concrete Machinery Co., Dunellen, N. J.
Shadegg Engine Co., 315 Third St. So., Minneapolis.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Westinghouse Machine Co., Pittsburg, Pa.
Williams, G. H., Co., Cleveland, Ohio.
Williamson Bros. Co., Philadelphia, Pa.
Wisconsin Engine Co., Corliss, Wis.
Zellicker Supply Co., Walter A., St. Louis, Mo.

Engines (Hot Air)

Allis-Chalmers Co., Milwaukee, Wis.
Dake Engine Co., Grand Haven, Mich.
Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
Flory, S., Mfg. Co., Bangor, Pa.
Rider-Ericsson Engineer Co., 35 Warren St., New York.
Wallace Hoist Sales Co., Ft. Wayne, Ind.

Engines (Oil)

Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
Mietz, August, 128 Mott St., New York.
Moore, Sam'l L., & Sons, Elizabeth, N. J.
Osborn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Shadegg Engine Co., 315 Third St., So., Minneapolis.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Westinghouse Machine Co., Pittsburg, Pa.

Engines (Portable)

Abenaque Machine Works, Westminster Sta., Vt.
American Well Works, Aurora, Ill.

Mention "The Engineering Record" when writing.

Avery Co., Peoria, Ill.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Buffalo Forge Co., Buffalo, N. Y.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Du Bois Iron Works, Du Bois, Pa.
 Erie Pump & Engine Co., Erie, Pa.
 Huber Mfg., Co., Marion, Ohio.
 Lawrence Machine Co., Lawrence, Mass.
 Leffel & Co., James, Springfield, Ohio.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Morris Machine Works, Baldwinsville, N. Y.
 Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Shadegg Engine Co., 315 Third St., So., Minneapolis.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Thompson, J., & Sons Mfg. Co., Deloit, Wis.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Westinghouse Machine Co., Pittsburg, Pa.

Engines (Steam)

Allis-Chalmers Co., Milwaukee, Wis.
 American Blower Co., Detroit, Mich.
 American Well Works, Aurora, Ill.
 Buckeye Engine Co., Salem, Ohio.
 Buffalo Forge Co., Buffalo, N. Y.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Chicago House Wrecking Co., 35th & Iron Sts., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Dake Engine Co., Grand Haven, Mich.
 Erie Pump & Engine Co., Erie, Pa.
 Fernyak & Stavenik Machine Co., Mansfield, Ohio.
 Flory, S., Mfg. Co., Bangor, Pa.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
 Green Fuel Economizer Co., Matteawan, N. Y.
 Hobbs-Ives Equipment & Machinery Co., Seaboard Bank, Norfolk, Va.
 Hunt Co., C. W., West New Brighton, N. Y.
 International Steam Pump Co., 115 Broadway, New York.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Koppel Co., Arthur, Pittsburg, Pa.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Lawrence Machine Co., Lawrence, Mass.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Leffel & Co., James, Springfield, Ohio.
 McIntosh, Seymour & Co., 50 Church St., New York.
 Mietz, August, 128 Mott St., New York.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Morris Machine Works, Baldwinsville, N. Y.
 Morris Co., I. P., Philadelphia, Pa.
 Phoenix Iron Works Co., Meadville, Pa.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Ridgway, Dynamo & Engine Co., Ridgway, Pa.
 Surtevant, B. F., Co., Hyde Park, Mass.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Waterloo Cement Machinery Corporation, Waterloo, Ia.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wisconsin Engine Co., Corliss, Wis.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Engines (Traction)

Avery Company, Peoria, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Conklin, H. O., Equipment Co., Harvey, Ill.
Huber Mfg. Co., Marion, Ohio.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Longenecker & Co., Chas., 150 Nassau St., New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 67 Dey St., New York.
Mietz, August, 128 Mott St., New York.
New York Cableway & Engineering Co., 1 Rector St., New York.
Shadegg Engine Co., 315 Third St., So., Minneapolis.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Zellicker Supply Co., Walter A., St. Louis, Mo.

Engines (Traction—Gasoline)

Abernake Machine Works, Westminster Sta., Vt.
Fairbanks Co., Broome & Lafayette Sts., New York.
International Steam Pump Co., 115 Broadway, New York.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Shadegg Engine Co., 315 Third St., So., Minneapolis.
Wallace Hoist Sales Co., Ft. Wayne, Ind.

Evaporators

American Ship Windlass Co., Providence, R. I.
Buffalo Forge Co., Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Wheeler, C. H., Mfg. Co., 18th & Lehigh Ave., Philadelphia, Pa.
Williamson Bros. Co., Philadelphia, Pa.

Excavating Machinery

Austin Mfg. Co., 307 Dearborn St., Chicago, Ill.
Austin, F. C., Drainage Excavator Co., Railway Exchange, Chicago, Ill.
Browning Mfg. Co., Cleveland, Ohio.
Bucyrus Co., So. Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Hayward Co., 50 Church St., New York.
Hough Co., Wm. B., Monadnock Bldg., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Marion Steam Shovel Co., Marion, Ohio.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Municipal Engineering & Contracting Co., Railway Exchange, Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Parsons Co., G. W., Observatory Bldg., Des Moines, Ia.
St. Paul Ditcher & Carrier Co., St. Paul, Minn.
Thew Automatic Shovel Co., Lorain, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Williams, G. H., Co., Cleveland, Ohio.
Wonham, Magor Cfg & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Exhaust Heads

American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
Burt Mfg. Co., Akron, Ohio.
Sturtevant, B. F., Co., Hyde Park, Mass.

Mention "The Engineering Record" when writing.

Expanded Metal (See Fireproof Construction)

Expansion Joints

Alberger Pump Co., 95 Liberty St., New York.
Badger, E. B., & Sons Co., 75 Pitts St., Boston, Mass.
Coldwell-Wilcox Co., Newburgh, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Miller & Co., C. L., 110 E. 23d St., New York.
Schott, W. H., 125 Monroe St., Chicago, Ill.

Exploders

Ætna Powder Co., 143 Dearborn St., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Du Pont de Nemours, E. I., Powder Co., Wilmington.
Keystone Powder Mfg. Co., Emporium, Pa.
National Powder Co., 200 Fifth Ave., New York.
Sinnamahoning Powder Mfg. Co., Emporium, Pa.
Trojan Powder Co., 60 Wall St., New York.

Explosives

Ætna Powder Co., 143 Dearborn St., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Du Pont de Nemours, E. I., Powder Co., Wilmington.
Keystone Powder Mfg. Co., Emporium, Pa.
National Powder Co., 200 Fifth Ave., New York.
Sinnamahoning Powder Mfg. Co., Emporium, Pa.
Trojan Powder Co., 60 Wall St., New York.

Eyes (Wire Rope)

Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Leschen & Sons Rope Co., A., St. Louis, Mo.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Roebbling's Sons Co., John A., Trenton, N. J.
Scully Steel & Iron Co., Chicago, Ill.

Fans

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Baldwin, William J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
General Electric Co., Schenectady, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
New York Blower Co., Stewart Ave., Chicago, Ill.
Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Mass.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.

Fans (Electric)

American Blower Co., Detroit, Mich.
Baldwin, William J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
D'Olier Engineering Co., 121 S. 11th St., Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
New York Blower Co., Stewart Ave., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Mass.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Fasteners (Sheeting Roofing)

Lupton's Sons Co., David, Allegheny Ave., & Witte St., Philadelphia, Pa.

Feed-Water Heaters

Alberger Pump Co., 95 Liberty St., New York.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.

Mention "The Engineering Record" when writing.

Chicago House Wrecking Co., 35th & Iron Sts., Chicago, Ill.
 International Steam Pump Co., 115 B'way, New York.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
 National Pipe Bending Co., New Haven, Conn.
 Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
 Phoenix Iron Works Co., Meadville, Pa.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
 Wheeler, C. H., Mfg Co., 18th & Lehigh Ave., Philadelphia, Pa.
 Williamson Bros. Co., Philadelphia, Pa.

Feed-Water Purifiers

Booth Co., L. M., 136 Liberty St., New York.
 Jewell Engineering Co., Cable Bldg., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Phoenix Iron Works Co., Meadville, Pa.
 Pittsburg Filter Mfg., Co., Farmers' Bank Bldg., Pittsburg, Pa.
 Purification & Engineering Co., 52 Church St., N. Y.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.

Felt

Barrett Mfg. Co., 17 Battery Pl., New York.
 Warren-Ehret Co., Land Title Bldg., Philadelphia, Pa.

Fence, Railing and Posts

American Steel & Wire Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Anchor Post Iron Works, 15 Church St., New York.
 Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
 Decatur Bridge Co., Decatur, Ill.
 Douglas, Geo. B., 29 Broadway, New York.
 Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
 Page Woven Wire Fence Co., Adrian, Mich.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Tidewater Iron Works, 8th & Jefferson Sts., Hoboken, N. J.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Warren Construction Co., Warren, Ohio.
 Wisconsin Bridge & Iron Co., No. Milwaukee, Wis.
 Wyckoff Pipe & Creosoting Co., Inc., 50 Church St., New York.

Filing Cases (Metal)

Berger Mfg. Co., Canton, Ohio.

Filters (Feed Water)

Booth Co., L. M., 136 Liberty St., New York.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Greer Filter Mfg. Co., Inc., Hartje Bldg., Pittsburg, Pa.
 New York Continental Jewell Filtration Co., Mills Bldg., New York.
 Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
 Pittsburg Filter Mfg. Co., Farmers' Bank Bldg., Pittsburg, Pa.
 Purification & Engineering Co., 52 Church St., N. Y.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.

Filters (Rate-Controllers)

New York Continental Jewell Filtration Co., Mills Bldg., New York.
 Norwood Engineering Co., Florence, Mass.

Mention "The Engineering Record" when writing.

Pittsburg Filter Mfg. Co., Farmers' Bank Bldg., Pittsburg.
Simplex Valve & Meter Co., 112 No. Broad St., Philadelphia, Pa.

Filters (Water)

Booth Co., L. M., 136 Liberty St., New York.
Greer Filter Mfg. Co., Inc., Hartje Bldg., Pittsburg, Pa.
Jewell Engineering Co., Cable Bldg., Chicago, Ill.
Jewell Export Filter Co., 86 Weybosset St., Providence.
New York Continental Jewell Filtration Co., Mills Bldg., New York.
Norwood Engineering Co., Florence, Mass.
Pittsburg Filter Mfg. Co., Farmers' Bank Bldg., Pittsburg, Pa.
Purification & Engineering Co., 52 Church St., N. Y.
Roberts Filter Mfg. Co., 30th & Chestnut Sts., Philadelphia, Pa.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Sucro Filter Co., 42 Broadway, New York.

Filter Presses

International Con. Filter Press Co., Providence, R. I.
Moore, Samuel L., & Sons, Elizabeth, N. J.

Fire Brick and Fire Clay

Evans & Howard Fire Brick Co., St. Louis, Mo.
Good, Geo. S., Fire Brick Co., Patton, Cambria Co., Pa.
Patton Clay Mfg. Co., Patton, Cambria Co., Pa.
Robinson Clay Product Co., Flatiron Bldg., New York.
Warner Co., Chas., Wilmington, Del.

Fire Escapes (Steel)

Berlin Construction Co., Berlin, Conn.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Douglas, Geo. B., 29 Broadway, New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Page Woven Wire Fence Co., Adrian, Mich.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken, N. J.

Fire Extinguishers

Badger, E. B., & Sons Co., 63-75 Pitts St., Boston, Mass.
Johns-Manville Co., H. W., 100 William St., New York.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Fireproof Construction

Berger Mfg. Co., Canton, Ohio.
Climax Road Machine Co., Marathon, N. Y.
Collins Co., W. A., First Nat'l Bank Bldg., Chicago, Ill.
Garry Iron & Steel Co., Coe & Lake Sts., Cleveland.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Northwestern Expanded Metal Co., Old Colony Bldg., Chicago, Ill.
Roebbling Construction Co., Fuller Bldg., New York.
Trussed Concrete Steel Co., Trussed Concrete Bldg., Detroit, Mich.

Fireproof Doors

Berger Mfg. Co., Canton, Ohio.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Lupton's Sons Co., David, Allegheny Ave., & Witte St., Philadelphia, Pa.
U. S. Fireproofing Co., 25 West 33d St., New York.
Wilson Mfg. Co., Jas. G., 3 West 29th St., New York.

Mention "The Engineering Record" when writing.

Fireproof Windows

Badger, E. B., & Sons Co., 75 Pitts St., Boston, Mass.
Lupton's Sons Co., David, Allegheny Ave., & Witte St.,
Philadelphia, Pa.
Mullins & Co., W. H., Salem, Ohio.
Rendle, Arthur E., 18 West 34th St., New York.
U. S. Fireproofing Co., 25 West 33d St., New York.
Van Noorden Co., E., 944 Mass. Ave., Boston, Mass.

Fireproofing Materials

American Concrete Steel Co., Newark, N. J.
Berger Mfg. Co., Canton, Ohio.
Consolidated Expanded Metal Co's, 225 Fifth Ave., N. Y.
Corrugated Bar Co., St. Louis, Mo.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Johns-Manville Co., H. W., 100 William St., New York.
National Fire Proofing Co., 115 Adams St., Chicago, Ill.
Northwestern Expanded Metal Co., Old Colony Bldg.,
Chicago, Ill.
Page Woven Wire Fence Co., Adrian, Mich.
Portland Iron & Steel Co., 1009 Board of Trade Bldg.,
Boston, Mass.
Roebling Construction Co., Fuller Bldg., New York.
Standard Concrete Steel Co., 32d St. & E. R., New York.
Star Expansion Bolt Co., 147 Cedar St., New York.
Trussed Concrete Steel Co., Trussed Concrete Bldg.,
Detroit, Mich.
U. S. Fireproofing Co., 25 West 33d St., New York.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.

Fire Protection Supplies

"Jiffy" Fire Hose Rack Co., 727 Seventh Ave., N. Y.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.

Fixtures (Electric and Gas)

Wallace Hoist Sales Co., Ft. Wayne, Ind.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Flanges

American Spiral Pipe W'ks, P. O. Box 485, Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Lunkenheimer Co., Cincinnati, Ohio.
Massillon Iron & Steel Co., Massillon, Ohio.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Scully Steel & Iron Co., Chicago, Ill.
Walworth Mfg. Co., Boston, Mass.

Floor Plates

Builders' Iron Foundry, Providence R. I.
Carnegie Steel Co., Pittsburg, Pa.
Douglas, Geo. B., 29 Broadway, New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Hunt Co., C. W., West New Brighton, N. Y.
Lake Erie Engineering Works, Buffalo, N. Y.
Moore, Sam'l L., & Sons, Elizabeth, N. J.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Scully Steel & Iron Co., Chicago, Ill.
Whitehead & Kales Iron Works, Detroit, Mich.

Floor Stands

Fairbanks Co., Broome & Lafayette Sts., New York.
Lunkenheimer Co., Cincinnati, Ohio.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Mention "The Engineering Record" when writing.

Flooring (Mastic)

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.
Wadsworth Stone & Paving Co., Bessmer Bldg., Pittsburgh, Pa.

Flue Linings

Evans & Howard Fire Brick Co., St. Louis, Mo.
Johns-Manville Co., H. W., 100 William St., New York.
Patton Clay Mfg. Co., Patton, Cambria Co., Pa.
Warner Co., Chas., Wilmington, Del.

Flumes (Steel)

Egleston, T. G., Ideal Bldg., Denver, Col.

Fly-Wheels

Allis-Chalmers Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Huron Steel & Iron Co., Norwalk, Ohio.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
Moore, Sam'l L., & Sons, Elizabeth, N. J.
Morris Co., I. P., Philadelphia, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Traylor Engineering Co., Allentown, Pa.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Forges

American Stoker Co., 11 Broadway, New York.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
New York Blower Co., Stewart Ave., Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Mass.

Forging Machines

Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Forgings (Steel)

American Spiral Pipe W'ks, P. O. Box 485, Chicago, Ill.
Carnegie Steel Co., Pittsburgh, Pa.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Douglas, Geo. B., 29 Broadway, New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Huron Steel & Iron Co., Norwalk, Ohio.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Patterson Co., W. W., 54 Water St., Pittsburgh, Pa.
Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Pittsburg Tubular Steel Whiffletree Co., Pittsburgh, Pa.
Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.
Scaife & Sons Co., Wm. B., 221 First Ave., Pittsburgh, Pa.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
Williams & Co., J. H., 150 Hamilton Ave., Brooklyn, N. Y.

Mention "The Engineering Record" when writing.

Forms (See Centers)

Foundations

Foundation Co., 115 Broadway, New York.
Jackson (Inc.), Geo. W., 179 W. Jackson Blvd., Chicago.
O'Rourke Engineering Construction Co., 345 Fifth Ave.,
New York.
Pneumatic Caisson Co., Troy, N. Y.

Foundry Equipment and Supplies

American Stoker Co., 11 Broadway, New York.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Fairbanks Co., Broome & Lafayette Sts., New York.
Goldschmidt Thermit Co., 90 West St., New York.
Koppel Co., Arthur, Pittsburg, Pa.
Northern Engineering Works, Detroit, Mich.
Star Expansion Bolt Co., 147 Cedar St., New York.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Frogs and Switches (Ry)

Archer Iron Works, Inc., 34th Pl. & Western Ave.,
Chicago, Ill.
Douglas, G. B., 29 Broadway, New York.
Hunt Co., C. W., West New Brighton, N. Y.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Koppel Co., Arthur, Pittsburg, Pa.
Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
U. S. Wind Engine & Pump Co., 28 Water St., Ba-
tavia, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Fuel Economizers

American Blower Co., Detroit, Mich.
American Stoker Co., 11 Broadway, New York.
Green Fuel Economizer Co., Matteawan, N. Y.
Murphy Iron Works, Detroit, Mich.
Parker Boiler Co., Pennsylvania Bldg., Phila., Pa.
Sturtevant, B. F., Co., Hyde Park, Mass.

Furnaces (Garbage and Refuse)

Baldwin, William J., World Bldg., New York.
Phoenix Iron Works Co., Meadville, Pa.

Furnaces (Lead)

Bond Co., Harold, L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Power & Mining Machinery Co., Cudahy, Wis.
Smith, A. P., Mfg. Co., Newark, N. J.
Tidewater Iron Works, 8th & Jefferson Sts., Ho-
boken, N. J.
Traylor Engineering Co., Allentown, Pa.
Union Iron Works, Hoboken, N. J.
Water Works Equipment Co., 50 Church St., New York.

Furnaces (Rivet)

Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Scully Steel & Iron Co., Chicago, Ill.

Mention "The Engineering Record" when writing.

Furnaces (Smokeless)

American Stoker Co., 11 Broadway, New York.
Bryan, William H., Lincoln Trust Bldg., St. Louis, Mo.
Murphy Iron Works, Detroit, Mich.
Willoughby, A. B., The Bourse, Philadelphia, Pa.

Furniture and Office Fittings

American Drafting Furniture Co., Rochester, N. Y.
Kolesch & Co., 138 Fulton St., New York.

Fuse

Ætna Powder Co., 143 Dearborn St., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Du Pont de Nemours, E. I., Powder Co., Wilmington.
National Powder Co., 200 Fifth Ave., New York.
Trojan Powder Co., 60 Wall St., New York.

Garbage Crematories

International Con. Filter Press Co., 10 Weybosset St.,
Providence, R. I.
Lewis & Kitchen, 433 Wabash Ave., Chicago, Ill.
Power Specialty Co., 111 Broadway, New York.

Gas Compressors

American Well Works, Aurora, Ill.
Dallett Co., Thos. H., 23d & York Sts., Phila., Pa.
Davis-Bournonville Co., 88 West St., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
International Steam Pump Co., 115 Broadway, N. Y.
Janney Steinmetz & Co., Philadelphia, Pa.
Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
Wisconsin Engine Co., Corliss, Wis.

Gas Exhausters

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
New York Blower Co., Stewart Ave., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Mass.

Gas Holders

Graver, Wm., Tank Works, East Chicago, Ind.
Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
Petroleum Iron Works, Sharon, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Wood & Co., R. D., 400 Chestnut St., Phila., Pa.

Gas Machinery

Davis-Bournonville Co., 88 West St., New York.
International Steam Pump Co., 115 Broadway, N. Y.
Moore, Sam'l L., & Sons Co., Elizabeth, N. J.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Power & Mining Machinery Co., Cudahy, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gas Producers

Allis-Chalmers Co., Milwaukee, Wis.
American Stoker Co., 11 Broadway, New York.
Du Bois Iron Works, Du Bois, Pa.
Foos Gas Engine Co., Springfield, Ohio.
International Steam Pump Co., 115 B'way, New York.
Laidlaw-Dunn-Gordon Co., 115 B'way, New York.

Mention "The Engineering Record" when writing.

McNeil & Bros. Co., James, Pittsburg, Pa.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Power & Mining Machinery Co., Cudahy, Wis.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Standard Scale & Supply Co., 52 S. Canal St., Chicago, Ill.
 Struthers-Wells Co., Warren, Pa.
 Thompson, J., & Sons Mfg. Co., Beloit, Wis.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wood & Co., R. D., 400 Chestnut St., Phila., Pa.

Gas Scrubbers

Buffalo Forge Co., Buffalo, N. Y.
 Du Bois Iron Works, Du Bois, Pa.
 Graver, Wm., Tank Works, East Chicago, Ind.
 Power & Mining Machinery Co., Cudahy, Wis.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Southwark Foundry & Machinery Co., Philadelphia, Pa.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gas Works Construction

Evens & Howard Fire Brick Co., St. Louis, Mo.
 Pneumatic Caisson Co., Nat'l State Bank Bldg., Troy, N. Y.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Schott, W. H., 125 Monroe St., Chicago, Ill.
 Star Expansion Bolt Co., 147 Cedar St., New York.
 Traylor Engineering Co., Allentown, Pa.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 White & Co., J. G., Inc., 43 Exchange Pl., New York.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gaskets

American District Steam Co., Lockport, New York.
 Channon Co., H., Market & Randolph St., Chicago, Ill.
 Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
 Detroit Leather Specialty Co., Inc., 50 Beecher Ave., Detroit, Mich.
 Jenkins Bros., 71 John St., New York.
 Johns-Manville Co., H. W., 100 William St., New York.
 Power Specialty Co., 111 Broadway, New York.
 Scully Steel & Iron Co., Chicago, Ill.

Gaskets (Copper)

American District Steam Co., Lockport, New York.
 Badger, E. B., & Sons Co., 75 Pitts St., Boston, Mass.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
 Power Specialty Co., 111 Broadway, New York.
 Scully Steel & Iron Co., Chicago, Ill.

Gates and Valves

American District Steam Co., Lockport, New York.
 American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
 Coffin Valve Co., Neponset, Boston, Mass.
 Coldwell-Wilcox Co., Newburgh, N. Y.
 Egleston, T. G., Ideal Bldg., Denver, Col.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Fox & Co., John, 253 Broadway, New York.
 Lunkenheimer Co., Cincinnati, Ohio.
 National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Power Specialty Co., 111 Broadway, New York.

Mention "The Engineering Record" when writing.

Smith, A. P., Mfg. Co., Newark, N. J.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Water Works Equipment Co., 50 Church St., N. Y.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gates (Iron Entrance)

Anchor Post Iron Works, 15 Church St., New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Page Woven Wire Fence Co., Adrian, Mich.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Stewart Iron Works Co., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Gates (Ore Bin)

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Burrell Mfg. Co., Bradley, Ill.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Power & Mining Machinery Co., Cudahy, Wis.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
Traylor Engineering Co., Allentown, Pa.

Gates (Sluice), (See Sluice Gates)

Gauges (Loss of Head and Rate of Flow)

Simplex Valve & Meter Co., 112 N. Broad St., Phila., Pa.

Gauges (Steam), (See Steam Specialties)

Gauges (Track)

Fairbanks Co., Broome & Lafayette Sts., New York.
Hunt Co., C. W., West New Brighton, N. Y.
Koppel Co., Arthur, Pittsburg, Pa.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Gears

Chain Belt Co., Milwaukee, Wis.
Climax Road Machine Co., Marathon, N. Y.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Leffel & Co., James, Springfield, Ohio.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Morris Co., I. P., Philadelphia, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Sivyer Steel Casting Co., Milwaukee, Wis.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Generators (Electric)

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Burke Electric Co., Erie, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 121 S. 11th St., Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Sturtevant, B. F., Co., Hyde Park, Mass.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Giants, Hydraulic

American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.

Mention "The Engineering Record" when writing.

Governors (Water-Wheel)

Allis-Chalmers Co., Milwaukee, Wis.
Morris Co., I. P., Philadelphia, Pa.
Standard Water Meter Co., 245 Robinson St., B'klyn, N. Y.

Graders and Scrapers, Earth (See Road Machinery)

Grain Elevators and Storage Tanks

American Bridge Co., of N. Y., 30 Church St., New York.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Graver, W., Tank Works, East Chicago, Ind.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Petroleum Iron Works, Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburgh, Pa.
Steel Storage & Elevator Construction Co., Buffalo, N. Y.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Warren Construction Co., Warren, Ohio.

Grain Elevator Builders

Bartlett C. O., & Snow Co., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Warren Construction Co., Warren, Ohio.

Graphite

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Dixon Crucible Co., Joseph, Jersey City, N. J.

Grates

Green Engineering Co., 115 Adams St., Chicago, Ill.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Thompson, J., & Sons Mfg. Co., Beloit, Wis.
Traylor Engineering Co., Allentown, Pa.
Willoughby, A. B., The Bourse, Philadelphia, Pa.

Gravel-Roofing

American Asphaltum & Rubber Co., 600-699 The Harvester Bldg., Chicago, Ill.
Barrett Mfg. Co., 17 Battery Pl., New York.
Hydrex Felt & Engineering Co., 120 Liberty St., N. Y.
Warren Ehret Co., Land Title Bldg., Philadelphia, Pa.

Gravity Incline Machines

New York Cableway & Engineering Co., 1 Rector St., New York.

Greases (See Lubricants)

Grinding & Mixing Machinery

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Besser Mfg. Co., Alpena, Mich.
Bradley Pulverizer Co., 92 State St., Boston, Mass.
Builders' Iron Foundry, Providence, R. I.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conveying Weigher Co., 92 West St., New York.
Dunning, W. D., Waters St., Syracuse, N. Y.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Kent Mill Co., 170 Broadway, New York
Power & Mining Machinery Co., Cudahy, Wis.

Mention "The Engineering Record" when writing.

Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.
Raymond Bros. Impact Pulverizer Co., 145 Laflin St.,
Chicago, Ill.
Smidth & Co., F. L., 50 Church St., New York.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Traylor Engineering Co., Allentown, Pa.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Williams Pat. Crusher & Pulverizer Co., Old Colony
Bldg., Chicago, Ill.

Hammers

Bond, Harold L., Co., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Scully Steel & Iron Co., Chicago, Ill.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.

Hand Cars

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Haiss, Geo. Mfg. Co., 138th St. & Rider Ave., N. Y.
McCoy Co., Henry J., 67 Dey St., New York.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Hangers (Joist)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Star Expansion Bolt Co., 147 Cedar St., New York.

Heads (Flanged and Dished Boiler)

Lake Erie Engineering Works, Buffalo, N. Y.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.

Heaters (Air)

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Chicago House Wrecking Co., 35th & Iron Sts., Chi-
cago, Ill.
Green Fuel Economizer Co., Matteawan, N. Y.
Sturtevant, B. F., Co., Hyde Park, Mass.

Heaters (Electric)

Chicago House Wrecking Co., 35th & Iron Sts., Chicago.
General Electric Co., Schenectady, N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Heaters (Feed-Water), (See Feed-Water Heaters)

Heating and Ventilating Machinery

American Blower Co., Detroit, Mich.
Baldwin, William J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Chicago House Wrecking Co., 35th & Iron Sts., Chicago.
Hitchings & Co., 1170 Broadway, New York.
New York Blower Co., Stewart Ave., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Mass.

Mention "The Engineering Record" when writing.

Hoist and Grab Hooks

Allis-Chalmers Co., Milwaukee, Wis.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Lake Erie Engineering Works, Buffalo, N. Y.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.

Hoisting Rope

American Hoist & Derrick Co., St. Paul, Minn.
American Mfg. Co., 65 Wall St., New York.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Byers, Jno. F., Machine Co., Ravenna Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Lescher & Sons Rope Co., A., St. Louis, Mo.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Hoists (Chain and Rope)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning, Victor R., & Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Chisholm & Moore Mfg. Co., Cleveland, Ohio.
Dake Engine Co., Grand Haven, Mich.
Fairbanks Co., Broome & Lafayette Sts., New York.
Hobbs-Ives, Equipment & Machinery Co., Seaboard Bank, Norfolk, Va.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, -Detroit, Mich.
Power & Mining Machinery Co., Cudahy, Wis.
Scully Steel & Iron Co., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.

Hoists (Electric)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
American Ship Windlass Co., Providence, R. I.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning, Victor R., & Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph St., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Flory, S., Mfg. Co., Bangor, Pa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Lambert Hoisting Engine Co., Newark, N. J.
Lidgerwood Mfg. Co., 96 Liberty St., New York.

Mention "The Engineering Record" when writing.

Longenecker & Co., Chas., 150 Nassau St., New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
Williamson Bros. Co., Philadelphia, Pa.

Hoists (Gasoline)

Abenaque Machine Works, Westminster Sta., Vt.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Du Bois Iron Works, Du Bois, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Foos Gas Engine Co., Springfield, Ohio.
Foote Concrete Machinery Co., 134 La Salle St., Chicago, Ill.
Hildreth Mfg. Co., 703 Sheridan St., Lansing, Mich.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Janney, Steinmetz & Co., Philadelphia, Pa.
Koehring Machine Co., Milwaukee, Wis.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Mietz, August, 128 Mott St., New York.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Shadegg Engine Co., 315 Third St. So., Minneapolis.
Standard Scale & Supply Co., 52 S. Canal St., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.

Hoists (Hand)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
American Ship Windlass Co., Providence, R. I.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Chisholm & Moore Mfg. Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Coldwell-Wilcox Co., Newburgh, N. Y.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.

Hoists (Head Gate)

Brown Hoisting Machinery Co., Cleveland, Ohio.
Coldwell-Wilcox Co., Newburgh, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Northern Engineering Works, Detroit, Mich.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.

Hoists (Pneumatic)

Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Dake Engine Co., Grand Haven, Mich.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.

Mention "The Engineering Record" when writing.

Ingersoll-Rand Co., 11 Broadway, New York.
Northern Engineering Works, Detroit, Mich.
Scully Steel & Iron Co., Chicago, Ill.

Hoists (Steam)

Abenague Machine Works, Westminster Sta., Vt.
Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
American Ship Windlass Co., Providence, R. I.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Browning, Victor R., & Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory, S., Mfg. Co., Bangor, Pa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
Haiss, Geo., Mfg. Co., 138th St. & Rider Ave., N. Y.
Hough Co., Wm. B., Monadnock Bldg., Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Lambert Hoisting Engine Co., Newark, N. J.
McCoy Co., Henry J., 67 Dey St., New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St., New York.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Williams, G. H., Co., Cleveland, Ohio.
Williamson Bros. Co., Philadelphia, Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Hooks (Wire Rope)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Roebbling's Sons Co., John A., Trenton, N. J.
Scully Steel & Iron Co., Chicago, Ill.

Hose

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
Scully Steel & Iron Co., Chicago, Ill.

Hose Attachments

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.

Hose Couplings

Allis-Chalmers Co., Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.

Mention "The Engineering Record" when writing.

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
Scully Steel & Iron Co., Chicago, Ill.

Hose (Protected)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.

Hose Racks

"Jiffy" Fire Hose Rack Co., 727 Seventh Ave., N. Y.

Hydrants

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Dean Bros. Steam Pump Co., Indianapolis, Ind.
Douglas, W. & B., Middletown, Conn.
Fairbanks Co., Broome & Lafayette Sts., New York.
Fox & Co., John, 253 Broadway, New York.
National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
Norwood Engineering Co., Florence, Mass.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Smith, A. P., Mfg. Co., Newark, N. J.
Water Works Equipment Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Hydraulic Leather Packings

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Detroit Leather Specialty Co., Inc., 50 Beecher Ave., Detroit, Mich.
Dudgeon, Richard, 24 Columbia St., New York.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.
Watson-Stillman Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Ice and Refrigerating Machinery

Brown Hoisting Machinery Co., Cleveland, Ohio.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Traylor Engineering Co., Allentown, Pa.
York Mfg. Co., York, Pa.

Incline Cableway Engines

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Conklin, H. O., Equipment Co., Harvey, Ill.
Flory, S., Mfg. Co., Bangor, Pa.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Lambert Hoisting Engine Co., Newark, N. J.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St., New York.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Mention "The Engineering Record" when writing.

Indicator Posts

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Pittsburgh Mfg. Co., Pittsburgh, Penna.

Induced Draft Equipment

American Blower Co., Detroit, Mich.
American Stoker Co., 11 Broadway, New York.
Buffalo Forge Co., Buffalo, N. Y.
New York Blower Co., Stewart Ave., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Mass.

Injectors

American Injector Co., Detroit, Mich.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Jenkins Bros., 71 John St., New York.
Lunkenheimer Co., Cincinnati, Ohio.
Powell Co., Wm., 2525 Spring Grove Ave., Cincinnati.

Inspection of Materials

Buff & Buff Mfg. Co., Boston, Mass.
Conard, Wm. R., Burlington, N. J.
Dow & Smith, 24 E. 21st St., New York.
Hunt & Co., Robert W., Monongahela Bank Bldg.,
Pittsburg, Pa.
Lehigh Valley Testing Laboratory, Allentown, Pa.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
White & Co., J. G., Inc., 43 Exchange Pl., New York.

Instruments, Engineering, Surveying and Mathematical (See Engineers' and Sur- veyors' Instruments and Supplies)

Insurance

Ætna Life Insurance Co., Hartford, Conn.
Contractors' & Builders' Insurance Agency, Inc., Rich-
mond, Va.
Ritch, William T., Inc., 1123 Broadway, New York.

Iron (Corrugated)

Baltimore Bridge Co., Baltimore, Md.
Berger Mfg. Co., Canton, Ohio.
Berlin Construction Co., Berlin, Conn.
Canton Bridge Co., Canton, Ohio.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Inland Steel Co., First National Bank Bldg., Chicago, Ill.
Kratz & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
Mississippi Valley Construction Co., Fullerton Bldg.,
St. Louis, Mo.
Riverside Bridge Co., Martin's Ferry, Ohio.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.

Iron Fence and Railings

Anchor Post Iron Works, 15 Church St., New York.
Belmont Iron Works, 22d St. & Washington Ave., Phila-
delphia, Pa.
Canton Bridge Co., Canton, Ohio.
Decatur Bridge Co., Decatur, Ill.
Douglas, G. B., 29 Broadway, New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Page Woven Wire Fence Co., Adrian, Mich.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Stewart Iron Works Co., Cincinnati, Ohio.
Tidewater Iron W'ks, 8th & Jefferson Sts, Hoboken, N. J.
Warren Construction Co., Warren, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Mention "The Engineering Record" when writing.

Iron (Sheet)

Berger Mfg. Co., Canton, Ohio.
Douglas, Geo. B., 29 Broadway, New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Garry Iron & Steel Co., Coe & Lake Sts., Cleveland.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Inland Steel Co., First National Bank Bldg., Chicago, Ill.
Janney, Steinmetz & Co., Philadelphia, Pa.
Riverside Bridge Co., Martin's Ferry, Ohio.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Scully Steel & Iron Co., Chicago, Ill.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken, N. J.
Whitehead & Kales Iron Works, Detroit, Mich.

Ironwork (Architectural and Ornamental)

Anchor Post Iron Works, 15 Church St., New York.
American Bridge Co., of N. Y., 30 Church St., N. Y.
Baltimore Bridge Co., Baltimore, Md.
Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
Berger Mfg. Co., Canton, Ohio.
Berlin Construction Co., Berlin, Conn.
Brooks & Co., T. H., Cleveland, Ohio.
Champion Bridge Co., Wilmington, Ohio.
Clinton Bridge & Iron Works, Clinton, Ia.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Decatur Bridge Co., Decatur, Ill.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Douglas, Geo. B., 29 Broadway, New York.
Garry Iron & Steel Co., Coe & Lake Sts., Cleveland.
Glidden Varnish Co., Cleveland, Ohio.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Hudson Structural Steel Co., 136th St. & Southern Blvd., New York.
Irwin Thos. W. Mfg. Co., N. S. Pittsburg, Pa.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.
Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
Lupton's Sons Co., David, Allegheny Ave. & Witte St., Philadelphia, Pa.
Memphis Bridge Co., Memphis, Tenn.
Milwaukee Bridge Co., Milwaukee, Wis.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Mullins Co., W. H., Salem, Ohio.
Noelke-Richards Iron Works, Indianapolis, Ind.
Northwestern Expanded Metal Co., Old Colony Bldg., Chicago, Ill.
Page Woven Wire Fence Co., Adrian, Mich.
Rendle, Arthur E., 18 W. 34th St., New York.
Riverside Bridge Co., Martin's Ferry, Ohio.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Snare & Triest Co., 143 Liberty St., New York.
Stewart Iron Works Co., Cincinnati, Ohio.
Tidewater Iron W'ks, 8th & Jefferson Sts., Hoboken, N.J.
Warren Construction Co., Warren, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.
Wilkins, Grant, Atlanta, Ga.
Wisconsin Bridge & Iron Co., No. Milwaukee, Wis.

Irrigation

Allis-Chalmers Co., Milwaukee, Wis.
American Engineering & Construction Co., Drexel Bldg., Philadelphia, Pa.

Mention "The Engineering Record" when writing.

Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
 Austin, F. C., Drainage Excavator Co., Railway Exchange, Chicago, Ill.
 Morris Machine Works, Baldwinsville, N. Y.
 Municipal Engineering & Contracting Co., Railway Exchange, Chicago, Ill.
 National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
 Pulsometer Steam Pump Co., 17 Battery Pl., New York.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 White & Co., J. G., Inc., 43 Exchange Pl., New York.

Irrigation Supplies

Allis-Chalmers Co., Milwaukee, Wis.
 American Well Works, Aurora, Ill.
 Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
 Austin Mfg. Co., 307 Dearborn St., Chicago, Ill.
 Builders' Iron Foundry, Providence, R. I.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Coffin Valve Co., Neponset, Boston, Mass.
 Coldwell-Wilcox Co., Newburgh, N. Y.
 De Laval Steam Turbine Co., Trenton, N. J.
 Griffiths Iron Works Co., 23d & Papin Sts., St. Louis.
 Janney, Steinmetz & Co., Philadelphia, Pa.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 Massillon Iron & Steel Co., Massillon, Ohio.
 Moore, Sam'l L., & Sons, Elizabeth, N. J.
 National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
 Star Expansion Bolt Co., 147 Cedar St., New York.

Jacks (Screw and Lever)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Contractors' Plant Mfg. Co., Buffalo, N. Y.
 Duff Mfg. Co., N. S., Pittsburg, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
 Scully Steel & Iron Co., Chicago, Ill.
 Wiener Co., Ernst, Fulton & Church Sts., New York.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Jacks (Hydraulic)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Contractors' Plant Mfg. Co., Buffalo, N. Y.
 Dudgeon, Richard, 24 Columbia St., New York.
 Duff Mfg. Co., N. S., Pittsburg, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Watson-Stillman Co., 50 Church St., New York.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Jacks (Pneumatic)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Contractors' Plant Mfg. Co., Buffalo, N. Y.
 Duff Mfg. Co., N. S., Pittsburg, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Northern Engineering Works, Detroit, Mich.
 Scully Steel & Iron Co., Chicago, Ill.
 Watson-Stillman Co., 50 Church St., New York.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Jacks (Screw)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Climax Road Machine Co., Marathon, N. Y.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Duff Mfg. Co., N. S. Pittsburg, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Jacks (Track)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Duff Mfg. Co., N. S., Pittsburg, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Scully Steel & Iron Co., Chicago, Ill.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Joints (Expansion, Copper)

American District Steam Co., Lockport, New York.
Badger, E. B., & Sons Co., 63-75 Pitts St., Boston, Mass.
Coldwell-Wilcox, Co., Newburgh, N. Y.
Power Specialty Co., 111 Broadway, New York.

Joints (Flexible)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Coldwell-Wilcox Co., Newburgh, N. Y.
Moran Flexible Steam Joint Co., 149 Third St., Louisville, Ky.
Power Specialty Co., 111 Broadway, New York.
Walker Mfg. Co., Fenton, Mich.

Kettles (Melting)

Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Graver, Wm., Tank Works, East Chicago, Ind.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Lake Erie Engineering Works, Buffalo, N. Y.
McCoy Co., Henry J., 67 Dey St., New York.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Riter-Conley Mfg. Co., Pittsburgh, Pa.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Tidewater Iron W'ks, 8th & Jefferson Sts., Hoboken, N.J.
Traylor Engineering Co., Allentown, Pa.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.

Kettles (Steam Jacket)

Badger, E. B., & Sons Co., 63-75 Pitts St., Boston, Mass.
Channon Co., H., Market & Randolph St., Chicago, Ill.
Graver, Wm., Tank Works, East Chicago, Ind.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Lake Erie Engineering Works, Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Petroleum Iron Works, Sharon, Pa.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Traylor Engineering Co., Allentown, Pa.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Mention "The Engineering Record" when writing.

Kilns

American Blower Co., Detroit, Mich.
Graver, Wm., Tank Works, East Chicago, Ind.
Power & Mining Machinery Co., Cudahy, Wis.

Kilns (Cement)

Allis-Chalmers Co., Milwaukee, Wis.
Power & Mining Machinery Co., Cudahy, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Vulcan Iron Works, Wilkes-Barre, Pa.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Kilns (Drying)

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burrell Mfg. Co., Bradley, Ill.
Cummer & Son Co., F. D., Cleveland, Ohio.
Power & Mining Machinery Co., Cudahy, Wis.
Sturtevant, B. F., Co., Hyde Park, Mass.
Vulcan Iron Works, Wilkes-Barre, Pa.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Kilns (Lime)

Allis-Chalmers Co., Milwaukee, Wis.
Graver, Wm., Tank Works, East Chicago, Ind.
Power & Mining Machinery Co., Cudahy, Wis.
Vulcan Iron Works, Wilkes-Barre, Pa.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Kominuters

Raymond Bros., Impact Pulverizer Co., 145 Laflin St.,
Chicago, Ill.
Smidth & Co., F. L., 50 Church St., New York.

Labor Bureau

International Brotherhood of Steam Shovel & Dredge
Men, 134 Monroe St., Chicago, Ill.

Ladles (Foundry)

Channon Co., H., Market & Randolph St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
McNeil & Bros. Co., James, Pittsburg, Pa.
Morris Co., I. P., Philadelphia, Pa.
Northern Engineering Works, Detroit, Mich.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Traylor Engineering Co., Allentown, Pa.
Union Iron Works, Hoboken, N. J.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Ladles (Foundry Car)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Lake Erie Engineering Works, Buffalo, N. Y.
Northern Engineering Works, Detroit, Mich.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Ladles (Steel)

Fairbanks Co., Broome & Lafayette Sts., New York.
Lake Erie Engineering Works, Buffalo, N. Y.

Mention "The Engineering Record" when writing.

McNeil & Bros. Co., James., Pittsburg, Pa.
Northern Engineering Works, Detroit, Mich.
Petroleum Iron Works, Sharon, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Riter-Conley Mfg. Co., Pittsburgh, Pa.
Traylor Engineering Co., Allentown, Pa.
Union Iron Works, Hoboken, N. J.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Lamp Posts

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fox & Co., John, 253 Broadway, New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Moore, Sam'l L., & Sons, Elizabeth, N. J.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Stewart Iron Works Co., Cincinnati, Ohio.

Lamps (Arc and Incandescent)

General Electric Co. Schenectady, N. Y.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Lath (Metal)

American Rolling Mill Co., Middletown, Ohio.
Berger Mfg. Co., Canton, Ohio.
Clinton Wire Cloth Co., 1 Madison Ave., New York.
Garry Iron & Steel Co., Coe & Lake Sts., Cleveland.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Roebbling Construction Co., Fuller Bldg., New York.
Trussed Concrete Steel Co., Trussed Concrete Bldg.,
Detroit, Mich.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Warner Co., Chas., Wilmington, Del.

Leadite

Leadite Co., Inc., 1232 Land Title Bldg., Philadelphia, Pa.
Water Works Equipment Co., 50 Church St., New York.

Lead-Wool

United Lead Co., 111 Broadway, New York.
Water Works Equipment Co., 50 Church St., New York.

Levels

Ainsworth, Wm., & Sons, Denver, Col.
Architects & Engineers Supply Co., 1010 Grand Ave.,
Kansas City, Mo.
Bausch & Lomb Optical Co., Rochester, N. Y.
Berger, C. L. & Sons, 37 Williams St., Boston, Mass.
Buff & Buff Mfg. Co., Boston, Mass.
Fairbanks Co., Broome & Lafayette Sts., New York.
Hanna Mfg. Co., Troy, N. Y.
Iszard-Warren Co., Inc., 1122 Vine St., Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., New York.
Kolesch & Co., 138 Fulton St., New York.
Prince, L. M., 108 W. 4th St., Cincinnati, Ohio.
Surveyors' Instrument Exchange, Box 948, Phila., Pa.
Williams, Brown & Earle, 918 Chestnut St., Phila., Pa.

Levels (Track)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Fairbanks Co., Broome & Lafayette Sts., New York.

Lifting Magnets

Browning Engineering Co., Cleveland, Ohio.

Mention "The Engineering Record" when writing.

Lighthouse Foundations

American Concrete Caisson Co., Nat'l State Bank Bldg.,
Troy, N. Y.
Foundation Co., 115 Broadway, New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Pneumatic Caisson Co., Nat'l State Bank Bldg., Troy,
N. Y.
Wilkins, Grant, Atlanta, Ga.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.

Lights (Contractors')

McCoy Co., Henry J., 67 Dey St., New York.
Wells Light Mfg. Co., 14 Church St., New York.

Lights (Sidewalks and Vault), (See Sky-lights)

Lime

National Lime & Stone Co., Carey, Ohio.
Warner Co., Chas., Wilmington, Del.

Lime (Hydrated)

National Lime & Stone Co., Carey, Ohio.
Warner Co., Chas., Wilmington, Del.

Lockers

Berger Mfg. Co., Canton, Ohio.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Stewart Iron Works Co., Cincinnati, Ohio.
U. S. Fireproofing Co., 25 W. 33d St., New York.

Locomotives (Compressed Air)

Ingersoll-Rand Co., 11 Broadway, New York.
Potter Co., H. K., Trust Bldg., Pittsburg, Pa.
Vulcan Iron Works, Wilkes-Barre, Pa.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Locomotives (Electric)

General Electric Co., Schenectady, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Locomotives (Gasoline)

Conklin, H. O., Equipment Co., Harvey, Ill.
Du Bois Iron Works, Du Bois, Pa.
Osborn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Locomotives (Industrial and Light)

American Locomotive Co., 30 Church St., New York.
Atlantic Equipment Co., 30 Church St., New York.
Conklin, H. O., Equipment Co., Harvey, Ill.
Davenport Locomotive Works, Davenport, Ia.
Douglas, Geo. B., 29 Broadway, New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Koppel Co., Arthur, Pittsburg, Pa.
Lima Locomotive & Machine Co., Lima, Ohio.
Potter Co., H. K., Trust Bldg., Pittsburg, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.

Mention "The Engineering Record" when writing.

Vulcan Iron Works, Wilkes-Barre, Pa.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Locomotives (Steam)

American Locomotive Co., 30 Church St., New York.
Atlantic Equipment Co., 30 Church St., New York.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Conklin, H. O., Equipment Co., Harvey, Ill.
Dallett & Co., 611 Harrison Bldg., Philadelphia, Pa.
Davenport Locomotive Works, Davenport, Iowa.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Lima Locomotive & Machine Co., Lima, Ohio.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Potter Co., H. K., Trust Bldg., Pittsburg, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Vulcan Iron Works, Wilkes-Barre, Pa.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Locomotives (Traction)

Huber Mfg. Co., Marion, Ohio.
Longenecker & Co., Chas., 150 Nassau St., New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 67 Dey St., New York.
Osborn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Logging Outfits

Brown Hoisting Machinery Co., Cleveland, Ohio.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Clyde Iron Works, Duluth, Minn.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Flory, S., Mfg. Co., Bangor, Pa.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Lambert Hoisting Engine Co., Newark, N. J.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Potter Co., H. K., Trust Bldg., Pittsburg, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
Williamson Bros. Co., Philadelphia, Pa.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Log Loaders

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Clyde Iron Works, Duluth, Minn.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Flory, S., Mfg. Co., Bangor, Pa.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Lambert Hoisting Engine Co., Newark, N. J.
Lidgerwood Mfg. Co., 96 Liberty St., New York.

Mention "The Engineering Record" when writing.

Marion Steam Shovel Co., Marion, Ohio.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Lubricants

Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conveying Weigher Co., 92 West St., New York.
Dixon Crucible Co., Joseph, Jersey City, N. J.
Leschen & Sons Rope Co., A., St. Louis, Mo.

Lubricators

American Injector Co., Detroit, Mich.
Greene, Tweed & Co., 109 Duane St., New York.
Lunkenheimer Co., Cincinnati, Ohio.
Powell C., Wm., 2525 Spring Grove Ave., Cincinnati,

Lumber (Creosoted)

American Creosoting Co., 29 Broadway, New York.
Barber Asphalt Paving Co., Maurer, N. J.
Carbolineum Wood Preserving Co., 349 West Broadway, New York.
Fairbanks Co., Broome & Lafayette Sts., New York.
Gulfport Creosoting Co., Gulfport, Miss.
U. S. Wood Preserving Co., 29 Broadway, New York.
Wyckoff Pipe & Creosoting Co., Inc., 50 Church St., New York.

Machine Tools

Builders' Iron Foundry, Providence, R. I.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Davis-Bournonville Co., 88 West St., New York.
Fairbanks Co., Broome & Lafayette Sts., New York.
Lea Equipment Co., West Street Bldg., N. Y.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.

Machinery, Second-Hand (See Second-Hand Machinery and Supplies)

Machinists and Founders

Allis Chalmers Co., Milwaukee, Wis.
American Ship Windlass Co., Providence, R. I.
Builders' Iron Foundry, Providence, R. I.
Chain Belt Co., Milwaukee, Wis.
Chisholm & Moore Mfg. Co., Cleveland, Ohio.
Climax Road Machine Co., Marathon, N. Y.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
Moore, Sam'l L., & Sons, Elizabeth, N. J.
Phoenix Iron Works Co., Meadville, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Raymond Bros. Impact Pulverizer Co., 145 Laffin St., Chicago, Ill.
Standard Cast Iron Pipe & Foundry Co., Bristol, Pa.
Sweeney & Gray, 81 Sixth St., Long Island City, N. Y.
Walker Mfg. Co., Fenton, Mich.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Mention "The Engineering Record" when writing.

Manganese Steel

Carnegie Steel Co., Pittsburg, Pa.
Chain Belt Co., Milwaukee, Wis.
Douglas, Geo. B., 29 Broadway, New York.
Huron Steel & Iron Co., Norwalk, Ohio.
Koppel Co., Arthur, Pittsburg, Pa.
Longenecker & Co., Chas., 150 Nassau St., New York.
Prosser, Thos., & Son ("Krupp"), 15 Gold St., New York.
Sivyer Steel Casting Co., Milwaukee, Wis.

Manhole Covers

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
Builders' Iron Foundry, Providence, R. I.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Coldwell-Wilcox Co., Newburgh, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fox & Co., John, 253 Broadway, New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Lake Erie Engineering Works, Buffalo, N. Y.
McCoy Co., Henry J., 67 Dey St., New York.
Phoenix Iron Works Co., Meadville, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Standard Cast Iron Pipe & Foundry Co., Bristol, Pa.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
Whitehead & Kales Iron Works, Detroit, Mich.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Marble (Workers' and Dealers')

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.

Mauls

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.

Mechanical Draft Plant

American Blower Co., Detroit, Mich.
American Stoker Co., 11 Broadway, New York.
Baldwin, William J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
Kidde, Walter, 140 Cedar St., New York.
New York Blower Co., Stewart Ave., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Mass.
Wallace Hoist Sales Co., Ft. Wayne, Ind.

Metallic Window Frame and Sash

Dahlstrom Metallic Door Co., Jamestown, N. Y.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Irwin Thos. W. Mfg. Co., N. S., Pittsburg, Pa.
Lupton's Sons Co., David, Allegheny Ave. & Witte St., Philadelphia, Pa.
Mullins Co., W. H., Salem, Ohio.

Metals (Reinforcing)

American System of Reinforcing, 189 La Salle St., Chicago, Ill.
Berger Mfg. Co., Canton, Ohio.
Clinton Wire Cloth Co., 1 Madison Ave., New York.
Concrete Steel Co., 29 Broadway, New York.
Consolidated Expanded Metal Cos., 225 Fifth Ave., N. Y.
Douglas, Geo. B., 29 Broadway, New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Hough C., Wm. B., Monadnock Blk., Chicago, Ill.
Lackawanna Steel Co., 2 Rector St., New York.

Mention "The Engineering Record" when writing.

Northwestern Expanded Metal Co., Old Colony Bldg.,
Chicago, Ill.
Page Woven Wire Fence Co., Adrian, Mich.
Portland Iron & Steel Co., 1009 Board of Trade Bldg.,
Boston, Mass.
Steel Protected Concrete Co., Real Estate Trust Bldg.,
Philadelphia, Pa.
Truss Metal Lath Co., 147 Fourth Ave., New York.
Trussed Concrete Steel Co., Trussed Concrete Bldg., De-
troit, Mich.
Warner Co., Chas., Wilmington, Del.

Metal Shingles and Tile

Berger Mfg. Co., Canton, Ohio.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Garry Iron & Steel Co., Coe & Lake Sts., Cleveland.
Mullins Co., W. H., Salem, Ohio.

Meter Box Covers

Buffalo Meter Co., 290 Terrace, Buffalo, N. Y.
Builders' Iron Foundry, Providence, R. I.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
McWane Pipe Works, Lynchburg, Va.
Standard Cast Iron Pipe & Foundry Co., Bristol, Pa.

Meter Provers

Pittsburgh Meter Co., East Pittsburgh, Pa.

Meters (Water, Oil and Gas)

American District Steam Co., Lockport, New York.
Buffalo Meter Co., 290 Terrace, Buffalo, N. Y.
Builders' Iron Foundry, Providence, R. I.
International Steam Pump Co., 115 E'way, New York.
National Meter Co., 84-86 Chambers St., New York.
Neptune Meter Co., 90 West St., New York.
Pittsburg Meter Co., East Pittsburgh, Pa.
Simplex Valve & Meter Co., 112 N. Broad St., Phila., Pa.
Standard Water Meter Co., 245 Robinson St., Brook-
lyn, N. Y.
Worthington, Henry R., 115 Broadway, New York.

Mills (Sugar)

Buffalo Forge Co., Buffalo, N. Y.
Lake Erie Engineering Works, Buffalo, N. Y.
Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.
Raymond Bros. Impact Pulverizer Co., 145 Laflin St.,
Chicago, Ill.

Mining Machinery

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Atlas Dryer Co., Cleveland, Ohio.
Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 215 Dearborn St., Chicago, Ill.
Broderick & Bascom Rope Co., 805 N. Main St., St.
Louis, Mo.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bucyrus Co., So. Milwaukee, Wis.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Conklin, H. O., Equipment Co., Harvey, Ill.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St.,
Philadelphia, Pa.
Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
Flory, S., Mfg. Co., Bangor, Pa.
Hardsocg Co., Martin, Allegheny, Pa.
Ingersoll-Rand Co., 11 Broadway, New York.
International Steam Pump Co., 115 Broadway, New York.

Mention "The Engineering Record" when writing.

Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Kent Mill Co., 170 Broadway, New York.
 Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Lambert Hoisting Engine Co., Newark, N. J.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Morris Co., I. P., Philadelphia, Pa.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
 Phœnix Iron Works Co., Meadville, Pa.
 Power & Mining Machinery Co., Cudahy, Wis.
 Prescott, Fred. M., Steam Pump Co., Milwaukee, Wis.
 Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.
 Pulsometer Steam Pump Co., 17 Battery Pl., New York.
 Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
 Ruggles-Coles Engineering Co., 39 Cortlandt St., N. Y.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
 Traylor Engineering Co., Allentown, Pa.
 Vulcan Iron Works, Wilkes-Barre, Pa.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Youngstown Car Mfg. Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mining Shafts

Carnegie Steel Co., Pittsburg, Pa.
 Cresson Co., Geo., V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
 Foundation Co., 115 Broadway, New York.
 Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.

Mixers (Asphalt)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
 Cummer & Son Co., F. D., Cleveland, Ohio.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
 Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 67 Dey St., New York.
 Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
 Tidewater Iron W'ks, 8th & Jefferson Sts., Hoboken, N.J.

Mixers (Cement), (See Cement Mixers)

Mixers (Mortar)

Allis-Chalmers Co., Milwaukee, Wis.
 Besser Mfg. Co., Alpena, Mich.
 Eureka Machine Co., Lansing, Mich.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 Municipal Engineering & Contracting Co., Railway Exchange, Chicago, Ill.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
 Waterloo Cement Machinery Corporation, Waterloo, Ia.

Motor Cars

Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
 Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
 Wiener Co., Ernst, Fulton & Church Sts., New York.
 Youngstown Car Mfg. Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Motors (Compressed Air)

Dake Engine Co., Grand Haven, Mich.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
Northern Engineering Works, Detroit, Mich.
Potter Co., H. K., Trust Bldg., Pittsburg, Pa.
Vulcan Iron Works, Wilkes-Barre, Pa.

Motors (Electric)

Allis-Chalmers Co., Milwaukee, Wis.
Burke Electric Co., Erie, Pa.
D'Olier Engineering Co., 121 S. 11th St., Phila., Pa.
General Electric Co., Schenectady, N. Y.
Northern Engineering Works, Detroit, Mich.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Sturtevant, B. F. Co., Hyde Park, Mass.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Motors (Water and Steam)

Dake Engine Co., Grand Haven, Mich.
Standard Water Meter Co., 245 Robinson St., Brooklyn, N. Y.

Municipal Hand Cars (See Cars [Hand and Push])

Nails (Wire)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Douglas, Geo. B., 29 Broadway, New York.
Page Woven Wire Fence Co., Adrian, Mich.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Netting (Wire)

Anchor Post Iron Works, 15 Church St., New York.
Clinton Wire Cloth Co., 1 Madison Ave., New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Northwestern Expanded Metal Co., Old Colony Bldg., Chicago, Ill.
Page Woven Wire Fence Co., Adrian, Mich.
Roebling Construction Co., Fuller Bldg., New York.

Nickel Steel

Carnegie Steel Co., Pittsburg, Pa.
Douglas, Geo. B., 29 Broadway, New York.
Huron Steel & Iron Co., Norwalk, Ohio.
Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.

Nuts and Nut Locks

Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Fairbanks Co., Broome & Lafayette Sts., New York.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Oakum

American Mfg. Co., 65 Wall St., New York.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Oil Burners (Gem)

Petroleum Iron Works, Sharon, Pa.

Mention "The Engineering Record" when writing.

Oil Filters

Burt Mfg. Co., Akron, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.

Oil (Linseed)

Sterling Varnish Co., Fulton Bldg., Pittsburg, Pa.

Oil Refining Plants

Graver, Wm., Tank Works, East Chicago, Ind.
Moore, Sam'l L., & Sons, Elizabeth, N. J.
Petroleum Iron Works, Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.

Oiling Systems

Burt Mfg. Co., Akron, Ohio.
Lunkenheimer Co., Cincinnati, Ohio.
Powell Co., Wm., 2525 Spring Grove Ave., Cincinnati.

Packing

American Mfg. Co., 65 Wall St., New York.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Greene, Tweed & Co., 109 Duane St., New York.
Jenkins Bros., 71 John St., New York.
Johns-Manville Co., H. W., 100 William St., New York.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Packing (Leather)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Detroit Leather Specialty Co., Inc., 50 Beecher Ave., Detroit, Mich.
Dudgeon, Richard, 24 Columbia St., New York.
Watson-Stillman Co., 50 Church St., New York.

Packing (Metallic)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Johns-Manville Co., H. W., 100 William St., New York.
Power Specialty Co., 111 Broadway, New York.

Packing (Water-Pipe)

American Mfg. Co., 65 Wall St., New York.
American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.

Paints & Metal Coatings

Carbolineum Wood Preserving Co., 349 West Broadway, New York.
Dixon Crucible Co., Joseph, Jersey City, N. J.
Elaterite Paint & Mfg. Co., Des Moines, Ia.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Glidden Varnish Co., Cleveland, Ohio.
Hammond-Boynton Paint & Chemical Co., Norwich, Conn.
Hydre Felt & Engineering Co., 120 Liberty St., N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
National Paint Wks., 100 William St., New York.
Rinald Bros., 1146 No. Hancock St., Philadelphia, Pa.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
Sterling Varnish Co., Fulton Bldg., Pittsburg, Pa.
Teredo Proof Paint Co., 17 Battery Pl., New York.
Wadsworth, Howland & Co., 156 Fifth Ave., New York.
Warner Co., Chas., Wilmington, Del.

Mention "The Engineering Record" when writing.

Paints (Asphalt)

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Maurer, N. J.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Glidden Varnish Co., Cleveland, Ohio.
Hydrex Felt & Engineering Co., 120 Liberty St., N. Y.
Sterling Varnish Co., Fulton Bldg., Pittsburg, Pa.
Warner Co., Chas., Wilmington, Del.

Paper (Drafting)

Iszard Warren Co., Inc., 1122 Vine St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Mitteneague Paper Co., Mitteneague, Mass.

Paving Joint Filter

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Maurer, N. J.
Barber Asphalt Paving Co., Land Title Bldg., Philadelphia, Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Knickerbocker Chemical Co., 24-26 Stone St., N. Y.
Standard Asphalt & Rubber Co., 205 La Salle St., Chicago, Ill.

Pavements (See also Asphalt Paving)

Barrett Mfg. Co., New York.
Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
Gulf Refining Co., Frick Bldg., Annex, Pittsburg, Pa.
Imperial Road Co., Times Bldg., New York.
McAvoy Vitrified Brick Co., 345 Arch St., Phila., Pa.
Rockport Granite Co., Rockport, Mass.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
Standard Oil Co., New York.
U. S. Wood Preserving Co., 29 Broadway, New York.

Peat Collectors

Milne, W. A., & Sons, Hamilton, Ontario, Can.

Penstocks

Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Graver Wm., Tank Works, East Chicago, Ind.
Morris Co., I. P., Philadelphia, Pa.
National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
Petroleum Iron Works, Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
U. S. Wind Engine & Pump Co., 28 Water St., Batavia, Ill.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Perforated Metals

Allis-Chalmers Co., Milwaukee, Wis.
Climax Road Machine Co., Marathon, N. Y.
Clinton Wire Cloth Co., 1 Madison Ave., New York.

Pile Driving Machinery

American Hoist & Derrick Co., St. Paul, Minn.
American Mfg. Co., 65 Wall St., New York.
Browning, Victor R., & Co., Cleveland, Ohio.
Bucyrus Co., So. Milwaukee, Wis.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clyde Iron Works, Duluth, Minn.
Conklin, H. O., Equipment Co., Harvey, Ill.

Mention "The Engineering Record" when writing.

Contractor's Plant Mfg. Co., Buffalo, N. Y.
Edson Mfg. Co., 255 Atlantic Ave., Boston, Mass.
Flory, S., Mfg. Co., Bangor, Pa.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Lambert Hoisting Engine Co., Newark, N. J.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Union Iron Works, Hoboken, N. J.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
Williamson Bros. Co., Philadelphia, Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Pile Protection

Lock Joint Pipe Co., 165 Broadway, New York.
Miller & Co., C. L., 110 E. 23d St., New York.
Teredo Proof Paint Co., 17 Battery Pl., New York.

Pile Shoes

Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Janney Steinmetz & Co., Philadelphia, Pa.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.

Piles (Concrete)

Foundation Co., 115 Broadway, New York.
Hennebique Construction Co., 1170 Broadway, New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Pneumatic Caisson Co., National State Bank Bldg., Troy, N. Y.
Raymond Concrete Pile Co., 135 Adams St., Chicago, Ill.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Wilkins, Grant, Atlanta, Ga.

Piles (Creosoted)

Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Barber Asphalt Paving Co., Maurer, N. J.
Carbolineum Wood Preserving Co., 349 W. B'way, N. Y.
Gulfport Creosoting Co., Gulfport, Miss.
Wyckoff Pipe & Creosoting Co., Inc., 50 Church St., New York.

Piles (Timber)

Foundation Co., 115 Broadway, New York.
Wyckoff Pipe & Creosoting Co., Inc., 50 Church St., New York.

Piling (Interlocking Steel)

Canton Bridge Co., Canton, Ohio.
Carnegie Steel Co., Pittsburg, Pa.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.
McCoy Co., Henry J., 67 Dey St., New York.
Wemlinger Steel Piling Co., 11 Broadway, New York.

Piling (Timber Sheet)

Wyckoff Pipe & Creosoting Co., Inc., 50 Church St., New York.

Pipe and Boiler Coverings

American District Steam Co., Lockport, N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Michigan Pipe Co., Bay City, Mich.

Mention "The Engineering Record" when writing.

Pipe-Bending Machines

Dudgeon, Richard, 24 Columbia St., New York.

Pipe Bends

Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.

Massillon Iron & Steel Co., Massillon, Ohio.

Morris Co., I. P., Philadelphia, Pa.

National Pipe Bending Co., New Haven, Conn.

Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pipe (Cast-Iron)

American Cast Iron Pipe Co., Birmingham, Ala.

Builders' Iron Foundry, Providence, R. I.

Chicago House Wrecking Co., 35th & Iron Sts., Chicago, Ill.

Climax Road Machine Co., Marathon, N. Y.

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.

Dimmick Pipe Co., Birmingham, Ala.

Donaldson Iron Co., Emaus, Lehigh Co., Pa.

Fox & Co., John, 253 Broadway, New York.

Galion Iron Works Co., Galion, Ohio.

Hitchings & Co., 1170 Broadway, New York.

Lake Erie Engineering Works, Buffalo, N. Y.

Massillon Iron & Steel Co., Massillon, Ohio.

McWane Pipe Works, Lynchburg, Va.

Standard Cast Iron Pipe & Foundry Co., Bristol, Pa.

U. S. Cast Iron Pipe & Foundry Co., 71 B'way, N. Y.

Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pipe (Concrete)

Besser Mfg. Co., Alpena, Mich.

Lock Joint Pipe Co., 165 Broadway, New York.

Ransome, Ernest L., 11 Broadway, New York.

Reinforced Concrete Pipe Co., Jackson, Mich.

Pipe Cutters

Fernyak & Stavenik Machine Co., Mansfield, Ohio.

Smith, A. P., Mfg. Co., Newark, N. J.

Water Works Equipment Co., 50 Church St., N. Y.

Pipe Dip

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.

Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.

Barrett Mfg. Co., 17 Battery Pl., New York.

Miller & Co., C. L., 110 E. 23d St., New York.

Standard Asphalt & Rubber Co., 205 La Salle St., Chicago, Ill.

Pipe Fittings

American Cast Iron Pipe Co., Birmingham, Ala.

American District Steam Co., Lockport, N. Y.

American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.

Builders' Iron Foundry, Providence, R. I.

Channon Co., H., Market & Randolph Sts., Chicago, Ill.

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.

Dimmick Pipe Co., Birmingham, Ala.

Donaldson Iron Co., Emaus, Lehigh Co., Pa.

Fairbanks Co., Broome & Lafayette Sts., New York.

Fox & Co., John, 253 Broadway, New York.

Lunkenheimer Co., Cincinnati, Ohio.

Massillon Iron & Steel Co., Massillon, Ohio.

National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.

Standard Cast Iron Pipe & Foundry Co., Bristol, Pa.

U. S. Cast Iron Pipe & Foundry Co., 71 Broadway, N. Y.

Mention "The Engineering Record" when writing.

Pipe (Galvanized Iron)

American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
Canton Bridge Co., Canton, Ohio.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Irwin, Thos. W., Mfg. Co., N. S., Pittsburg, Pa.
New York Blower Co., Stewart Ave., Chicago, Ill.
Osborn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Pipe-Joint Compounds

Dixon Crucible Co., Joseph, Jersey City, N. J.
Johns-Manville Co., H. W., 100 William St., New York.
Miller & Co., C. L., 110 E. 23d St., New York.

Pipe-Joints

American District Steam Co., Lockport, New York.
American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Goldschmidt Thermit Co., 90 West St., New York.
Leadite Co., Inc., 1232 Land Title Bldg., Philadelphia, Pa.
Power Specialty Co., 111 Broadway, New York.
United Lead Co., 111 Broadway, New York.

Pipe (Lead)

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
United Lead Co., 111 Broadway, New York.

Pipe-Line Supplies

American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Goldschmidt, Thermit, Co., 90 West St., New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
McCoy Co., Henry J., 67 Dey St., New York.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Star Expansion Bolt Co., 147 Cedar St., New York.
Union Iron Works, Hoboken, N. J.

Pipe (Lock-Bar)

East Jersey Pipe Co., 90 West St., New York.
Gillespie Co., T. A., Westinghouse Bldg., Pittsburg, Pa.
Reinforced Concrete Pipe Co., Jackson, Mich.

Pipe (Reinforced Concrete)

Lock Joint Pipe Co., 165 Broadway, New York.
Parmley, Walter C., Everett Bldg., Union Sq., N. Y.
Ransome Concrete Machinery Co., Dunellen, N. J.
Ransome, Ernest L., 11 Broadway, New York.
Trussed Concrete Steel Co., Trussed Concrete Bldg., Detroit, Mich.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.

Pipe (Riveted Steel)

American Bridge Co. of N. Y., 30 Church St., N. Y.
American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
Baltimore Bridge Co., Baltimore, Md.
Canton Bridge Co., Canton, Ohio.
Carroll-Porter Boiler & Tank Co., Empire Bldg., Pittsburg, Pa.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Des Moines Bridge & Iron Co., Des Moines, Ia
Douglas, Geo. B., 29 Broadway, New York.
East Jersey Pipe Co., 90 West St., New York.
Gillespie Co., T. A., Westinghouse Bldg., Pittsburg, Pa.
Graver, Wm., Tank Works, East Chicago, Ind.

Mention "The Engineering Record" when writing.

Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 McNeil & Bros. Co., James, Pittsburg, Pa.
 Morris Co., I. P., Philadelphia, Pa.
 National Equipment Co., 276 Dearborn St., Chicago Ill.
 Petroleum Iron Works, Sharon, Pa.
 Power & Mining Machinery Co., Cudahy, Wis.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
 Struthers-Wells Co., Warren, Pa.
 Tidewater Iron Works, 8th & Jefferson Sts., Hoboken, N. J.
 Traylor Engineering Co., Allentown, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Walsh's Holyoke Steam, Boiler Works, Holyoke, Mass.

Pipe (Steel)

American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
 Canton Bridge Co., Canton, Ohio.
 Clow, Jas. B., & Sons, 350 Franklin St., -Chicago, Ill.
 East Jersey Pipe Co., 90 west St., New York.
 Gillespie Co., T. A., Westinghouse Bldg., Pittsburg, Pa.
 Graver, Wm., Tank Works, East Chicago, Ind.
 Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
 Lake Erie Engineering Works, Buffalo, N. Y.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Scully Steel & Iron Co., Chicago, Ill.
 Traylor Engineering Co., Allentown, Pa.
 United State Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Pipe, Submerged

Wardwell, Frederick S., Stamford, Conn.

Pipe (Vitrified Clay and Sewer)

East Ohio Sewer Pipe Co., Irondale, Ohio.
 Evens & Howard Fire Brick Co., St. Louis, Mo.
 Patton Clay Mfg. Co., Patton, Cambria Co., Pa.
 Robinson Clay Product Co., Flatiron Bldg., New York.
 Warner Co., Chas., Wilmington, Del.

Pipe (Wood)

American District Steam Co., Lockport, New York.
 Excelsior Wooden Pipe Co., Balboa Bldg., San Francisco, Cal.
 Janney Steinmetz & Co., Philadelphia, Pa.
 Michigan Pipe Co., Bay City, Mich.
 National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
 Pacific Coast Pipe Co., Seattle, Wash.
 Portland Wood Pipe Co., Box 4038, Portland, Ore.
 Washington Pipe & Foundry Co., Tacoma, Wash.
 Wendnagel & Co., 22d & Jefferson Sts., Chicago, Ill.
 Wyckoff, A., & Son Co., Elmira, N. Y.

Pipe (Wrought Iron)

American District Steam Co., Lockport, New York.
 Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
 Douglas, Geo. B., 29 Broadway, New York.
 East Jersey Pipe Co., 90 West St., New York.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Mention "The Engineering Record" when writing.

Pipe (Wrought Iron and Cement)

American Pipe Mfg. Co., 112 N. Broad St., Phila., Pa.

Piping Contractors

American District Steam Co., Lockport, New York.

Scully Steel & Iron Co., Chicago, Ill.

Wardwell, Frederick S., Stamford, Conn.

Pitch

Barber Asphalt Paving Co., Philadelphia, Pa.

Barrett Mfg. Co., 17 Battery Pl., New York.

Plaster

Warner Co., Chas., Wilmington, Del.

Plates (Steel)

Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.

Carnegie Steel Co., Pittsburg, Pa.

Climax Road Machine Co., Marathon, N. Y.

Decatur Bridge Co., Decatur, Ill.

Douglas, Geo. B., 29 Broadway, New York.

Graver Wm., Tank Co., East Chicago, Ind.

Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.

Huron Steel & Iron Co Norwalk Ohio

Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.

Kratzer & Co. W. N., 3230 Smallman St., Pittsburg, Pa.

Lackawanna Steel Co., 2 Rector St., New York.

Lake Erie Engineering Works, Buffalo, N. Y.

Riverside Bridge Co., Martin's Ferry, Ohio.

Scully Steel & Iron Co., Chicago, Ill.

Tidewater Iron Works, 8th & Jefferson Sts., Hoboken, N. J.

Virginia Bridge & Iron Co., Roanoke, Va.

Wemlinger Steel Piling Co., 11 Broadway, New York.

Whitehead & Kales Iron Works, Detroit, Mich.

Youngstown Car Mfg. Co., Youngstown, Ohio.

Pliers (Wire-Cutting)

Scully Steel & Iron Co., Chicago, Ill.

Plumbers' Materials (Sanitary Specialties, Etc.)

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.

Glidden Varnish Co., Cleveland, Ohio.

Johns-Manville Co., H. W., 100 William St., New York.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.

Star Expansion Bolt Co., 147 Cedar St., New York.

Pneumatic Tools (See Compressed Air Tools)

Poles and Posts (Iron, Steel, Trolley Posts, Etc.)

Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.

Gulfport Creosoting Co., Gulfport, Miss.

Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.

Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.

Wisconsin Bridge & Iron Co., No. Milwaukee, Wis.

Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.

Portland Cement

Alpha Portland Cement Co., Easton, Pa.

Atlas Portland Cement Co., 30 Broad St., New York.

Chicago Portland Cement Co., 108 La Salle St., Chicago, Ill.

Dexter Portland Cement Co., Philadelphia, Pa.

Mention "The Engineering Record" when writing.

Douglas, Geo. B., 29 Broadway, New York.
 Fredenburg & Lounsbury, 289 Fourth Ave., New York.
 French, Samuel H., & Co., Philadelphia, Pa.
 Hartranft Cement Co., Wm. G., Real Estate Trust Bldg.,
 Philadelphia, Pa.
 Lawrence Cement Co., 1 Broadway, New York.
 Lehigh Portland Cement Co., Allentown, Pa.
 Marquette Cement Mfg. Co., Marquette Bldg., Chi-
 cago, Ill.
 Pennsylvania Cement Co., 26 Cortlandt St., New York.
 Sandusky Portland Cement Co., Sandusky, Ohio.
 Universal Portland Cement Co., Com'l Bank Bldg.,
 Chicago, Ill.
 Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
 Warner Co., Chas., Wilmington, Del.

Pots (Melting)

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Graver, Wm., Tank Works, East Chicago, Ind.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.

Powder

Ætna Powder Co., 143 Dearborn St., Chicago, Ill.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Du Pont de Nemours, E. I., Powder Co., Wilmington.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Keystone Powder Mfg. Co., Emporium, Pa.
 National Powder Co., 200 Fifth Ave., New York.
 Sinnamahoning Powder Mfg. Co., Emporium, Pa.
 Trojan Powder Co., 60 Wall St., New York.

Power Plant Piping

Kidde, Walter, 140 Cedar St., New York.
 National Wood Pipe Co., Equitable Bank Bldg., Los
 Angeles, Cal.
 Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Portland Wood Pipe Co., Box 4038, Portland, Ore.

Power Transmission Machinery

Allis-Chalmers Co., Milwaukee, Wis.
 American Mfg. Co., 65 Wall St., New York.
 Chain Belt Co., Milwaukee, Wis.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Phila-
 delphia, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Leffel & Co., Springfield, Ohio.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Morse Chain Co., Ithaca, N. Y.
 Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Smith Co., S. Morgan, York, Pa.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
 Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Presses (Hydraulic)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Dudgeon, Richard, 24 Columbia St., New York.
 Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Moore, Sam'l L., & Sons, Elizabeth, N. J.
 Morris Co., I. P., Philadelphia, Pa.
 Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.
 Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
 Watson-Stillman Co., 50 Church St., New York.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Mention "The Engineering Record" when writing.

Presses (Screw)

International Con. Filter Press Co., 10 Weybosset St.,
Providence, R. I.
Fairbanks Co., Broome & Lafayette Sts., New York.

Producers (Gas), (See Gas Producers)

Pullers (Car)

American Mfg. Co., 65 Wall St., New York.
Burrell Mfg. Co., Bradley, Ill.
Hunt Co., C. W., West New Brighton, N. Y.

Pulleys

Allis-Chalmers Co., Milwaukee, Wis.
Burrell Mfg. Co., Bradley, Ill.
Chain Belt Co., Milwaukee, Wis.
Climax Road Machine Co., Marathon, N. Y.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St.,
Philadelphia, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Smith Co., S. Morgan, York, Pa.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Pulverizers

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bradley Pulverizer Co., 92 State St., Boston, Mass.
Conklin, H. O., Equipment Co., Harvey, Ill.
Kent Mill Co., 170 Broadway, New York.
Power & Mining Machinery Co., Cudahy, Wis.
Prosser, Thos., & Son ("Krupp"), 15 Gold St., New York.
Raymond Bros. Impact Pulverizer Co., 145 Laflin St.,
Chicago, Ill.
Smidth & Co., F. L., 50 Church St., New York.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Universal Road Machinery Co., 120 Liberty St., N. Y.
Williams Pat. Crusher & Pulverizer Co., Old Colony
Bldg., Chicago, Ill.

Pumps (Operated by Air)

American Well Works, Aurora, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Dean Bros. Steam Pump Co., Indianapolis, Ind.
Deming Co., Salem, Ohio.
Douglas, W. & B., Middletown, Conn.
Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
Du Bois Iron Works, Du Bois, Pa.
Epping-Carpenter Co., Pittsburg, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
Ingersoll-Rand Co., 11 Broadway, New York.
International Steam Pump Co., 115 Broadway, N. Y.
Jeanesville Iron Works Co., Hazleton, Pa.
Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
Union Steam Pump Co., Battle Creek, Mich.
Wheeler, C. H., Mfg. Co., 18th & Lehigh Ave., Phila., Pa.
Worthington, Henry R., 115 Broadway, New York.

Pumps (Steam and Power)

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Artesian Well & Supply Co., Banigan Bldg., Provi-
dence, R. I.

Mention "The Engineering Record" when writing.

Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
 Baldwin, William J., World Bldg., New York.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Chicago House Wrecking Co., 35th & Iron Sts., Chicago, Ill.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Dayton Hydraulic Machinery Co., Dayton, Ohio.
 Dean Bros. Steam Pump Co., Indianapolis, Ind.
 Deane Steam Pump Co., 115 Broadway, New York.
 De Laval Steam Turbine Co., Trenton, N. J.
 D'Olier Engineering Co., 121 S. 11th St., Phila., Pa.
 Douglas, W. & B., Middletown, Conn.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Dudgeon, Richard, 24 Columbia St., New York.
 Emerson Steam Pump Co., Alexandria, Va.
 Epping-Carpenter Co., Pittsburg, Pa.
 Erie Pump & Engine Co., Erie, Pa.
 Foos Gas Engine Co., Springfield, Ohio.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hobbs-Ives Equipment & Machinery Co., Seaboard Bank, Norfolk, Va.
 International Steam Pump Co., 115 Broadway, New York.
 Jeanesville Iron Works Co., Hazelton, Pa.
 Knowles Steam Pump W'ks, 115 Broadway, New York.
 Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
 Lawrence Machine Co., Lawrence, Mass.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Lea Equipment Co., 90 West St., New York.
 Lombard Iron Works, Augusta, Ga.
 Marsh Co., 970 Old Colony, Bldg., Chicago, Ill.
 Morris Machine Works, Baldwinsville, N. Y.
 Prescott, Fred. M., Steam Pump Co., Milwaukee, Wis.
 Union Steam Pump Co., Battle Creek Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Walker Mfg. Co., Fenton, Mich.
 Wheeler, C. H., Mfg. Co., 18th & Lehigh Ave., Philadelphia, Pa.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
 Worthington, Henry R., 115 Broadway, New York.

Pumps (Centrifugal)

Abenague Machine Works, Westminster Sta., Vt.
 Alberger Pump Co., 95 Liberty St., New York.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Blower Co., Detroit, Mich.
 American Well Works, Aurora, Ill.
 Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Clow, Jas. B. & Sons, 350 Franklin St., Chicago, Ill.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Dayton Hydraulic Machinery Co., Dayton, Ohio.
 De Laval Steam Turbine Co., Trenton, N. J.
 Deming Co., Salem, Ohio.
 D'Olier Engineering Co., 121 S. 11th St., Phila., Pa.
 Douglas, W. & B., Middletown, Conn.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Erie Pump & Engine Co., Erie, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 International Steam Pump Co., 115 Broadway, N. Y.

Mention "The Engineering Record" when writing.

Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Jeanesville Iron Works Co., Hazleton, Pa.
 Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
 Lawrence Machine Co., Lawrence, Mass.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Lea Equipment Co., 90 West St., New York.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 67 Dey St., New York.
 Morris Machine Works, Baldwinsville, N. Y.
 Morris Co., I. P., Philadelphia, Pa.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
 Prescott Fred. M. Steam Pump Co., Milwaukee, Wis.
 Rider-Ericsson Engineering Co., 35 Warren St., N. Y.
 Scully Steel & Iron Co., Chicago, Ill.
 Shadegg Engine Co., 315 Third St. So., Minneapolis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Traylor Engineering Co., Allentown, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wheeler, C. H., Mfg. Co., 18th & Lehigh Ave., Philadelphia, Pa.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
 Worthington, Henry R., 115 Broadway, New York.

Pumps (Deep Well)

Abenague Machine Works, Westminster Sta., Vt.
 American Injector Co., Detroit, Mich.
 American Well Works, Aurora, Ill.
 Artesian Well & Supply Co., Banigan Bldg., Providence, R. I.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Dean Bros., Steam Pump Co., Indianapolis, Ind.
 Deane Steam Pump Co., 115 Broadway, New York.
 Deming Co., Salem, Ohio.
 Douglas, W. & B., Middletown, Conn.
 Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
 Epping-Carpenter Co., Pittsburg, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 International Steam Pump Co., 115 Broadway, New York.
 Jeanesville Iron Works Co., Hazleton, Pa.
 Keystone Driller Co., Beaver Falls, Pa.
 Knowles Steam Pump Works, 115 Broadway, New York.
 Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
 Lea Equipment Co., 90 West St., New York.
 Rider-Ericsson Eng. Co., 35 Warren St., New York.
 Roth Mfg. Co., 165 E. Morris St., Indianapolis, Ind.
 Union Steam Pump Co., Battle Creek, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 U. S. Wind Engine & Pump Co., 28 Water St., Batavia, Ill.
 Worthington, Henry R., 115 Broadway, New York.

Pumps (Diaphragm)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
 Deming Co., Salem, Ohio.
 Douglas, W. & B., Middletown, Conn.
 Edson Mfg. Co., 255 Atlantic Ave., Boston, Mass.

Mention "The Engineering Record" when writing.

Fairbanks Co., Broome & Lafayette Sts., New York.
Goulds Mfg. Co., Seneca Falls, N. Y.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Water Works Equipment Co., 50 Church St., New York.

Pumps (Dredging)

Alberger Pump Co., 95 Liberty St., New York.
American Well Works, Aurora, Ill.
Bucyrus Co., So. Milwaukee, Wis.
Buffalo Steam Pump Co., Buffalo, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Deming Co., Salem, Ohio.
Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
Edson Mfg. Co., 255 Atlantic Ave., Boston, Mass.
Erie Pump & Engine Co., Erie, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
International Steam Pump Co., 115 Broadway, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Jeanesville Iron Works Co., Hazleton, Pa.
Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Lawrence Machine Co., Lawrence, Mass.
Lawrence Pump & Engine Co., Lawrence, Mass.
Lea Equipment Co., 90 West St., New York.
Morris Machine Works, Baldwinsville, N. Y.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Pulsometer Steam Pump Co., 17 Battery Pl., New York.
Shadegg Engine Co., 315 Third St. So., Minneapolis.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
Worthington, Henry R., 115 Broadway, New York.

Pumps (Mine)

Abenague Machine Works, Westminster Sta., Vt.
Alberger Pump Co., 95 Liberty St., New York.
Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
Buffalo Steam Pump Co., Buffalo, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Dayton Hydraulic Machinery Co., Dayton, Ohio.
Dean Bros., Steam Pump Co., Indianapolis, Ind.
Deane Steam Pump Co., 115 Broadway, New York.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., Salem, Ohio.
D'Olier Engineering Co., 121 S. 11th St., Phila., Pa.
Douglas, W. & B., Middletown, Conn.
Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
Du Bois Iron Works, Du Bois, Pa.
Edson Mfg. Co., 255 Atlantic Ave., Boston, Mass.
Emerson Steam Pump Co., Alexandria, Va.
Epping-Carpenter Co., Pittsburg, Pa.
Erie Pump & Engine Co., Erie, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
International Steam Pump Co., 115 Broadway, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Jeanesville Iron Works Co., Hazleton, Pa.
Knowles Steam Pump W'ks, 115 Broadway, New York.

Mention "The Engineering Record" when writing.

Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
 Lawrence Machine Co., Lawrence, Mass.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Lea Equipment Co., 90 West St., New York.
 Morris Machine Works, Baldwinsville, N. Y.
 Morris Co., I. P., Philadelphia, Pa.
 Prescott, Fred. M., Steam Pump Co., Milwaukee, Wis.
 Pulsometer Steam Pump Co., 17 Battery Pl., New York.
 Union Steam Pump Co., Battle Creek, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Worthington, Henry R., 115 Broadway, New York.

Pumps (Rotary)

Abenague Machine Works, Westminster Sta., Vt.
 American Well Works, Aurora, Ill.
 Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
 Deming Co., Salem, Ohio.
 Douglas, W. & B., Middletown, Conn.
 Erie Pump & Engine Co., Erie, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 International Steam Pump Co., 115 Broadway, N. Y.
 Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Lea Equipment Co., 90 West St., New York.
 Morris Machine Works, Baldwinsville, N. Y.
 Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
 Prescott, Fred. M., Steam Pump Co., Milwaukee, Wis.
 Smith Co., S. Morgan, York, Pa.
 Southwark Foundry & Machinery Co., Philadelphia, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wheeler, C. H., Mfg. Co., 18th & Lehigh Ave., Philadelphia, Pa.
 Worthington, Henry R., 115 Broadway, New York.

Pumps (Sand)

Allis-Chalmers Co., Milwaukee, Wis.
 American Wells Works, Aurora, Ill.
 Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
 Austin Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Deming Co., Salem, Ohio.
 Edson Mfg. Co., 255 Atlantic Ave., Boston, Mass.
 Erie Pump & Engine Co., Erie, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
 International Steam Pump Co., 115 Broadway, N. Y.
 Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 McCoy Co., Henry J., 67 Dey St., New York.
 Morris Machine Works, Baldwinsville, N. Y.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
 Pulsometer Steam Pump Co., 17 Battery Pl., New York.
 Shadegg Engine Co., 315 Third St. So., Minneapolis.
 Sweeney & Gray, 81-5 Sixth St., Long Island City, N. Y.
 Traylor Engineering Co., Allentown, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
 Worthington, Henry R., 115 Broadway, New York.

Mention "The Engineering Record" when writing.

Pumps (Vacuum)

Abenague Machine Works, Westminster Sta., Vt.
Alberger Pump Co., 95 Liberty St., New York.
Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Buffalo Steam Pump Co., Buffalo, N. Y.
Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
Dean Bros., Steam Pump Co., Indianapolis, Ind.
Deming Co., Salem, Ohio.
Douglas, W. & B., Middletown, Conn.
Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
Emerson Steam Pump Co., Alexandria, Va.
Epping-Carpenter Co., Pittsburg, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
International Steam Pump Co., 115 Broadway, New York.
Jeanesville Iron Works Co., Hazleton, Pa.
Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
Prescott, Fred. M., Steam Pump Co., Milwaukee, Wis.
Pulsometer Steam Pump Co., 17 Battery Pl., New York.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Union Steam Pump Co., Battle Creek, Mich.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wheeler, C. H., Mfg. Co., 18th & Lehigh Ave., Philadelphia, Pa.
Worthington, Henry R., 115 Broadway, New York.

Pumps (Waterworks)

Abenague Machine Works, Westminster Sta., Vt.
Alberger Pump Co., 95 Liberty St., New York.
Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
Buffalo Steam Pump Co., Buffalo, N. Y.
Deane Steam Pump Co., 115 Broadway, New York.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., Salem, Ohio.
D'Olier Engineering Co., 121 S. 11th St., Phila., Pa.
Douglas, W. & B., Middletown, Conn.
Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
Du Bois Iron Works, Du Bois, Pa.
Edson Mfg. Co., 255 Atlantic Ave., Boston, Mass.
Epping-Carpenter Co., Pittsburg, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
International Steam Pump Co., 115 Broadway, N. Y.
Jeanesville Iron Works Co., Hazleton, Pa.
Knowles Steam Pump W'ks, 115 Broadway, N. Y.
Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Lawrence Machine Co., Lawrence, Mass.
Lea Equipment Co., 90 West St., New York.
Morris Machine Works, Baldwinville, N. Y.
Prescott, Fred. M., Steam Pump Co., Milwaukee, Wis.
Roth Mfg. Co., 165 E. Morris St., Indianapolis, Ind.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Thompson, J., & Sons, Mfg. Co., Beloit, Wis.
Union Steam Pump Co., Battle Creek, Mich.
Walker Mfg. Co., Fenton, Mich.
Wheeler, C. H., Mfg. Co., 18th & Lehigh Ave., Philadelphia, Pa.
Wisconsin Engine Co., Corliss, Wis.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
Worthington, Henry R., 115 Broadway, New York.

Mention "The Engineering Record" when writing.

Pumps (Windmill)

Abenague Machine Works, Westminster Sta., Vt.
Deming Co., Salem, Ohio.
Douglas, W. & B., Middletown, Conn.
Flint & Walling Mfg. Co., Kendallville, Ind.
Goulds Mfg. Co., Seneca Falls, N. Y.
U. S. Wind Engine & Pump Co., 28 Water St., Batavia, Ill.

Punches (Beam and Angle)

Buffalo Forge Co., Buffalo, N. Y.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Dudgeon, Richard, 24 Columbia St., New York.
Fairbanks Co., Broome & Lafayette Sts., New York.
Watson-Stillman Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Push Cars (See Cars [Hand and Push])

Quarry Bars

Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Ingersoll-Rand Co., 11 Broadway, New York.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.

Quarry Machinery

Allis Chalmers Co., Milwaukee, Wis.
Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Clyde Iron Works, Duluth, Minn.
Conklin, H. O., Equipment Co., Harvey, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
Dake Engine Co., Grand Haven, Mich.
Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory, S., Mfg. Co., Bangor, Pa.
Hardsocg Co., Martin, Allegheny, Pa.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Ingersoll Rand Co., 11 Broadway, New York.
Koppel Co., Arthur, Pittsburg, Pa.
Lambert Hoisting Engine Co., Newark, N. J.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Mead-Morrison Mfg. Co., Cambridge, Mass.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Sullivan Machinery Co., Railway Exchange, Chicago, Ill.
Union Iron Works, Hoboken, N. J.
Universal Road Machinery Co., 120 Liberty St., N. Y.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Williamson Bros. Co., Philadelphia, Pa.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Radiators

American District Steam Co., Lockport, New York.
American Radiator Co., 104 W. 42d St., New York.
Baldwin, William J., World Bldg., New York.

Mention "The Engineering Record" when writing.

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Gurney Heater Mfg. Co., 200 Franklin St., Boston, Mass.

Rail Joints, Fastenings and Specialties

Carnegie Steel Co., Pittsburg, Pa.
Douglas, Geo. B., 29 Broadway, New York.
Goldschmidt Thermit Co., 90 West St., New York.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Pennsylvania Steel Co., B. & C., Dept., Steelton, Pa.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Railings, Guards, Fences, Etc.

Anchor Post Iron Works, 15 Church St., New York.
Griffiths Iron W'ks, 23d & Papin Sts., St. Louis, Mo.
Star Expansion Bolt Co., 147 Cedar St., New York.
Stewart Iron Works, Co., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Railroads

American Engineering & Construction Co., Drexel Bldg., Philadelphia, Pa.
Illinois Central Railroad, 1 Park Row, Chicago, Ill.
Koppel Co., Arthur, Pittsburg, Pa.
Long Island Railroad, 263 Fifth Avenue, New York.
O'Rourke Engineering Construction Co., 345 Fifth Ave., New York.
Pennsylvania Railroad, Philadelphia, Pa.
White & Co., J. G., Inc., 43 Exchange Pl., New York.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Railroad Track Supplies

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Carnegie Steel Co., Pittsburg, Pa.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Goldschmidt Thermit Co., 90 West St., New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Koppel Co., Arthur, Pittsburg, Pa.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 67 Dey St., New York.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Star Expansion Bolt Co., 147 Cedar St., New York.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Rails and Track

Carnegie Steel Co., Pittsburg, Pa.
Douglas, Geo. B., 29 Broadway, New York.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Koppel Co., Arthur, Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Pennsylvania Steel Co., B. & C. Dept., Steeltown, Pa.
Prosser, Thos. & Son ("Krupp"), 15 Gold St., N. Y.
Southern Iron & Equipment Co., Atlanta, Ga.

Mention "The Engineering Record" when writing.

Stuebner, G. L., Iron Works, Long Island City, N. Y.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Rails, Second-Hand

Conklin, H. O., Equipment Co., Harvey, Ill.
Douglas, Geo. B., 29 Broadway, New York.
Southern Iron & Equipment Co., Atlanta, Ga.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Railways, Industrial and Narrow-Gauge

American Engineering & Construction Co., Drexel Bldg., Philadelphia, Pa.
Conklin, H. O., Equipment Co., Harvey, Ill.
Haiss, Geo., Mfg. Co., 138th St. & Rider Ave., New York.
Hunt Co., C. W., West New Brighton, N. Y.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Koppel Co., Arthur, Pittsburg, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Union Iron Works, Hoboken, N. J.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
White & Co., J. G., Inc., 43 Exchange Pl., New York.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Rate Controllers for Filters

Norwood Engineering Co., Florence, Mass.
Simplex Valve & Meter Co., 112 No. Broad St., Philadelphia, Pa.

Reamers

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Scully Steel & Iron Co., Chicago, Ill.

Reamers (Pneumatic)

Fairbanks Co., Broome & Lafayette Sts., New York.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
Scully Steel & Iron Co., Chicago, Ill.

Refrigerating Plants

Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Kidde, Walter, 140 Cedar St., New York.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Traylor Engineering Co., Allentown, Pa.

Regulators (Steam)

Allis-Chalmers Co., Milwaukee, Wis.
American District Steam Co., Lockport, New York.

Regulators (Water-Pressure)

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.

Mention "The Engineering Record" when writing.

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Pittsburgh Meter Co., East Pittsburgh, Pa.
Simplex Valve & Meter Co., 112 N. Broad St., Phila., Pa.

Reinforced Concrete Construction (See Concrete, Reinforced)

Reinforcement Steel for Concrete Structures

American Steel & Wire Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
American System of Reinforcing, 189 La Salle St., Chicago, Ill.
Belmont Iron Works, 22d St. & Wash. Ave., Phila., Pa.
Berger Mfg. Co., Canton, Ohio.
Buffalo Steel Co., Tonawanda, N. Y.
Calumet Steel Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
Canton Bridge Co., Canton, Ohio.
Carnegie Steel Co., Pittsburg, Pa.
Clinton Wire Cloth Co., 1 Madison Ave., New York.
Concrete Steel Co., 29 Broadway, New York.
Concrete Steel Engineering Co., Park Row Bldg., N. Y.
Consolidated Expanded Metal Co's, 225 Fifth Ave., N. Y.
Corrugated Bar Co., St. Louis, Mo.
Douglas, Geo. B., 29 Broadway, New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Hermann, Leibu, 11 Broadway, New York.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.
McCoy Co., Henry J., 67 Dey St., New York.
Mississippi Valley Construction Co., Fullerton Bldg., St. Louis, Mo.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Northwestern Expanded Metal Co., Old Colony Bldg., Chicago, Ill.
Page Woven Wire Fence Co., Adrian, Mich.
Portland Iron & Steel Co., 1009 Board of Trade Bldg., Boston, Mass.
Riverside Bridge Co., Martin's Ferry, Ohio.
Roebbling Construction Co., Fuller Bldg., New York.
Rogers-Shear Co., Warren, Pa.
Steel Protected Concrete Co., Real Estate Trust Bldg., Philadelphia, Pa.
Trussed Concrete Steel Co., Trussed Concrete Bldg., Detroit, Mich.
Turner Construction Co., 11 Broadway, New York.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Warner Co., Chas., Wilmington, Del.

Riveting Hammers

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
Scully Steel & Iron Co., Chicago, Ill.

Riveting Machines

Allen, John F., 370 Gerard Ave., New York.
Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Scully Steel & Iron Co., Chicago, Ill.

Mention "The Engineering Record" when writing.

Rivets

Champion Rivet Co., Cleveland, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Scully Steel & Iron Co., Chicago, Ill.

Road Machinery

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Barron, Jas. S., 133 Franklin St., New York.
Buffalo Pitts Co., Buffalo, N. Y.
Buffalo Steam Roller Co., Buffalo, N. Y.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Conklin, H. O., Equipment Co., Harvey, Ill.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
Decatur Bridge Co., Decatur, Ill.
Galion Iron Works Co., Galion, Ohio.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Kelley-Springfield Road Roller Co., Springfield, Ohio.
Longenecker & Co., Chas., 150 Nassau St., New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Sproul, Harvey B., Peekskill, N. Y.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Thew Automatic Shovel Co., Lorain, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Universal Road Machinery Co., 120 Liberty St., N. Y.

Road Oils

Barber Asphalt Paving Co., Philadelphia, Pa.
Barrett Mfg. Co., New York.
Gulf Refining Co., Pittsburg, Pa.
Indian Refining Co., First National Bank Bldg., Cincinnati, Ohio.
Standard Oil Co., 26 Broadway, New York.

Road Rollers

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Barber Asphalt Paving Co., Maurer, N. J.
Buffalo Pitts Co., Buffalo, N. Y.
Buffalo Steam Roller Co., Buffalo, N. Y.
Climax Road Machine Co., Marathon, N. Y.
Conklin, H. O., Equipment Co., Harvey, Ill.
Huber Mfg. Co., Marion, Ohio.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Kelley Springfield Road Roller Co., Springfield, Ohio.
Longenecker & Co., Chas., 150 Nassau St., New York.
Monarch Road Roller Co., Groton, Tompkins Co., N. Y.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Sproul, Harvey B., Peekskill, N. Y.
Zellicker Supply Co., Walter A., St. Louis, Mo.

Road Rollers (Horse)

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Conklin, H. O., Equipment Co., Harvey, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Galion Iron Works Co., Galion, Ohio.

Mention "The Engineering Record" when writing.

Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Longenecker & Co., Chas., 150 Nassau St., New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.

Rolling Mill Machinery

American Mfg. Co., 65 Wall St., New York.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
Wisconsin Engine Co., Corliss, Wis.

Roofing

Asbestos Protected Metal Co., Canton, Mass.
Barrett Mfg. Co., 17 Battery Pl., New York.
Buckingham Slate Co., Richmond, Va.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Garry Iron & Steel Co., Coe & Lake Sts., Cleveland.
Hydrex Felt & Engineering Co., 120 Liberty St., N. Y.
Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.
Johns-Manville Co., H. W., 100 William St., New York.
Miller & Co., C. L., 110 E. 23d St., New York.
Mullins Co., W. H., Salem, Ohio.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Warren-Ehret Co., Land Title Bldg., Philadelphia, Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Roofing (Asphalt)

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Maurer, N. J.
Barber Asphalt Paving Co., Land Title Bldg., Philadelphia, Pa.
Hydrex Felt & Engineering Co., 120 Liberty St., N. Y.
Knickerbocker Chemical Co., 24 Stone St., New York.
Standard Asphalt & Rubber Co., 205 La Salle St., Chicago, Ill.

Roofs (Steel Work for), (See Bridges, Roofs, Etc.)

Rope (Manila)

Allis-Chalmers Co., Milwaukee, Wis.
American Mfg. Co., 65 Wall St., New York.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Rope (Transmission Power)

Allis-Chalmers Co., Milwaukee, Wis.
American Mfg. Co., 65 Wall St., New York.
American Steel & Wire Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
Broderick & Bascom Rope Co., 805 No. Main St., St. Louis, Mo.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.

Mention "The Engineering Record" when writing.

Fairbanks Co., Broome & Lafayette Sts., New York.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Rope (Wire)

American Hoist & Derrick Co., St. Paul, Minn.
American Steel & Wire Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Roebbling's Sons Co., John A., Trenton, N. J.
Scully Steel & Iron Co., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Rubber Boots

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
McCoy Co., Henry J., 67 Dey St., New York.
Rubberhide Co., 212 Essex St., Boston, Mass.

Rules and Tapes

Fairbanks Co., Broome & Lafayette Sts., New York.
Iszard-Warren Co., Inc., 1122 Vine St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Lufkin Rule Co., Saginaw, Mich.
Wiebusch & Hilger, Ltd., 106 Lafayette St., New York.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Sand

New York Continental Jewell Filtration Co., Mills Bldg., New York.
St. Louis Portland Cement Co., St. Louis, Mo.
Warner Co., Chas., Wilmington, Del.

Sand-Blast Machines

Abenague Machine Works, Westminster Sta., Vt.
Ingersoll-Rand Co., 11 Broadway, New York.

Sash Operating Apparatus

Cassidy, Isaac, Summer Ave. & Erie R. R., Newark, N. J.
Hitchings & Co., 1170 Broadway, New York.
Lord & Burnham Co., Irvington-on-Hudson, New York.
Lupton's Sons Co., David, Allegheny Ave. & Witte St., Philadelphia, Pa.

Saw-Mill Machinery

Abenague Machine Works, Westminster Sta., Vt.
Allis-Chalmers Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.

Mention "The Engineering Record" when writing.

Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.

Scale Boxes

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Cyclopean Iron Works, Nutley, N. J.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Scales

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hunt Co., C. W., West New Brighton, N. Y.
Kolesch & Co., 138 Fulton St., New York.
Richardson Scale Co., 2-3 Park Row, New York.
Standard Scale & Supply Co., 52 S. Canal St., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.

Scarifiers

Austin Mfg. Co., 307 Dearborn St., Chicago, Ill.
Buffalo Steam Roller Co., Buffalo, N. Y.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Longenecker & Co., Chas., 150 Nassau St., New York.
Universal Road Machinery Co., 120 Liberty St., N. Y.

Schools and Colleges

American School of Correspondence, Chicago, Ill.
Clarkson School of Technology, Potsdam, N. Y.
International Correspondence School, Box 923, W. Scranton, Pa.
Lafayette College, Easton, Pa.
New York University, University Heights, New York City.
Ohio Northern University, Ada, Ohio.
Pennsylvania Military College, Chester, Pa.
Rensselaer Polytechnic Institute, Troy, N. Y.
Rose Polytechnic Institute, Terre Haute, Ind.
School of Structural Drafting, P. O. Box, 2122, Boston.
Sheffield Scientific School, New Haven, Conn.
State University of Iowa, Iowa City, Ia.
Stevens School, Hoboken, N. J.
Tufts College, Tufts College, P. O., Mass.
University of Illinois, Urbana, Ill.
University of Pennsylvania, Philadelphia, Pa.
University of Pittsburgh, Pittsburgh, Pa.
University of Vermont, Burlington, Vt.
Washington College of Engineering, Washington, D. C.

Scientific Books (See Books, Engineering and Technical)

Scrapers, Road

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Conklin H. O., Equipment Co., Harvey, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Union Iron Works, Hoboken, N. J.

Mention "The Engineering Record" when writing.

United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Screens (Sand, Coal, Gravel and Water)

Allis-Chalmers Co., Milwaukee, Wis.
Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Climax Road Machine Co., Marathon, N. Y.
Coldwell-Wilcox Co., Newburgh, N. Y.
Conklin, H. O., Equipment Co., Harvey, Ill.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
Haiss, Geo., Mfg. Co., 138th St. & Rider Ave., N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Kent Mill Co., 170 Broadway, New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Power & Mining Machinery Co., Cudahy, Wis.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Traylor Engineering Co., Allentown, Pa.,
Union Iron Works, Hoboken, N. J.

Second-Hand Machinery and Supplies

Atlantic Equipment Co., 30 Church St., New York.
Architects' & Engineers' Supply Co., 1010 Grand Ave., Kansas City, Mo.
Chicago House Wrecking Co., 35th & Iron Sts., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Continental Car & Equipment Co., 17 Battery Pl., N. Y.
Dallett & Co., 611 Harrison Bldg., Philadelphia, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Hobbs-Ives Equipment & Machinery Co., Seaboard Bank, Norfolk, Va.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Koppel Co., Arthur, Pittsburg, Pa.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Southern Iron & Equipment Co., Atlanta, Ga.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Separators (Cement, Plaster, Etc.)

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
Kent Mill Co., 170 Broadway, New York.
Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.

Separators (Steam and Oil)

American Blower Co., Detroit, Mich.
American District Steam Co., Lockport, New York.
American Radiator Co., 104 W. 42d St., New York.
Baldwin, William J., World Bldg., New York.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.

Service Boxes

American District Steam Co., Lockport, New York.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.

Mention "The Engineering Record" when writing.

Douglas, W. & B., Middletown, Conn.
Fox & Co., John, 253 Broadway, New York.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Water Works Equipment Co., 50 Church St., New York.

Settees (Iron)

Stewart Iron Works Co., Cincinnati, Ohio.

Sewage Disposal

Albright & Mebus, Land Title Bldg., Philadelphia, Pa.
Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Atlas Dryer Co., Cleveland, Ohio.
Cameron Septic Tank Co., Monadnock Blk., Chicago, Ill.
City Wastes Disposal Co., 156 Fifth Ave., New York.
Coffin Valve Co., Neponset, Boston, Mass.
Edson Mfg. Co., 255 Atlantic Ave., Boston, Mass.
Hering & Fuller, 170 Broadway, New York.
International Con. Filter Press Co., 10 Weybosset St., Providence, R. I.
International Steam Pump Co., 115 Broadway, N. Y.
Lewis & Kitchen, 433 Wabash Ave., Chicago, Ill.
Pacific Flush Tank Co., 184 La Salle St., Chicago, Ill.
Phillips, Richard H., Security Bldg., St. Louis, Mo.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Potts, Clyde, 17 Battery Pl., New York.

Sewer Braces

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Bottomley Machine Co., Alliance, Ohio.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken, N. J.

Sewer Buckets

Brown Hoisting Machinery Co., Cleveland, Ohio.
Doud, A. N., 5802 Clinton Ave., Cleveland, Ohio.
McCoy Co., Henry J., 67 Dey St., New York.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken, N. J.

Sewer Flushers (Automatic)

Coffin Valve Co., Neponset, Boston, Mass.
Pacific Flush Tank Co., 184 La Salle St., Chicago, Ill.

Sewer Pipe

Besser Mfg. Co., Alpena, Mich.
Climax Road Machine Co., Marathon, N. Y.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
East Ohio Sewer Pipe Co., Irondale, Ohio.
Evans & Howard Fire Brick Co., St. Louis, Mo.
Excelsior Wooden Pipe Co., Balboa Bldg., San Francisco, Cal.
Fox & Co., John, 253 Broadway, New York.
Lock Joint Pipe Co., 165 Broadway, New York.
Massillon Iron & Steel Co., Massillon, Ohio.
National Fire Proofing Co., 115 Adams St., Chicago, Ill.
National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
Parmley, Walter C., Everett Bldg., Union Sq., N. Y.
Patton Clay Mfg. Co., Patton, Cambria Co., Pa.
Reinforced Concrete Pipe Co., Jackson, Mich.
Robinson Clay Product Co., Flatiron Bldg., New York.
Warner Co., Chas., Wilmington, Del.

Mention "The Engineering Record" when writing.

Shackles

American Steel & Wire Co., Com'l Nat'l Bank Bldg.,
Chicago, Ill.
Broderick & Bascom Rope Co., 805 N. Main St., St.
Louis, Mo.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.

Shafting

Allis-Chalmers Co., Milwaukee, Wis.
American Steel & Wire Co., Com'l Nat'l Bank Bldg.,
Chicago, Ill.
Chain Belt Co., Milwaukee, Wis.
Climax Road Machine Co., Marathon, N. Y.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St.,
Philadelphia, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York..
Jones & Laughlin Steel Co., Pittsburg, Pa.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Power & Mining Machinery Co., Cudahy, Wis.
Scully Steel & Iron Co., Chicago, Ill.
Union Iron Works, Hoboken, N. J.
Vulcan Iron Works, Wilkesbarre, Pa.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Shears, Angle and Beam

Buffalo Forge Co., Buffalo, N. Y.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Fairbanks Co., Broome & Lafayette Sts., New York.
Scully Steel & Iron Co., Chicago, Ill.
Watson-Stillman Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Sheaves for Wire Rope (Hoisting)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
American Steel & Wire Co., Com'l Nat'l Bank Bldg.,
Chicago, Ill.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St.
Louis, Mo.
Byers, Jno. F., Machine Co., Ravenna, Ohio.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave., W. 17th St.,
Philadelphia, Pa.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Flory, S., Mfg. Co., Bangor, Pa.
Haiss, Geo. Mfg. Co., 138th St. & Rider Ave., N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Kiesler Co., 72 Pratt St., Chicago, Ill.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Roebbling's Sons Co., John A., Trenton, N. J.
Terry & Tench Co., 131st St. & Lexington Ave., N. Y.
Traylor Engineering Co., Allentown, Pa.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Fairbanks Co., Broome & Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hardsocg Co., Martin, Allegheny, Pa.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Shovels (Steam)

American Locomotive Co., 30 Church St., New York.
Atlantic Equipment Co., 30 Church St., New York.
Avery Company, Peoria, Ill.
Browning Mfg. Co., Cleveland, Ohio.
Conklin, H. O., Equipment Co., Harvey, Ill.
Dallett & Co., 611 Harrison Bldg., Philadelphia, Pa.
Hobbs-Ives Equipment & Machinery Co., Seaboard Bank, Norfolk, Va.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Marion Steam Shovel Co., Marion, Ohio.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Souther, John, & Co., Box 3118, Boston, Mass.
Thew Automatic Shovel Co., Lorain, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Whitehead & Kales Iron Works, Detroit, Mich.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Shutters (Rolling)

Wilson Mfg. Co., Jas. G., 3 West 29th St., New York.

Sidewalks

Blome Co., R. S., 79 Dearborn St., Chicago, Ill.
Overhead & Underground Construction Co., 2 Rector St., New York.

Skips

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Bergen Point Iron Works, 149 Broadway, New York.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Koppel Co., Arthur, Pittsburg, Pa.
Lambert Hoisting Engine Co., Newark, N. J.
Morris Co., I. P., Philadelphia, Pa.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Power & Mining Machinery Co., Cudahy, Wis.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken, N. J.
Traylor Engineering Co., Allentown, Pa.
Union Iron Works, Hoboken, N. J.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Skylights

Aberthaw Construction Co., 8 Beacon St., Boston, Mass.
American Luxfer Prism Co., 42 Madison St., Chicago, Ill.
Badger, E. B., & Sons Co., 75 Pitts St., Boston, Mass.
Berger Mfg. Co., Canton, Ohio.
Brooks & Co., T. H., Cleveland, Ohio.
Burt Mfg. Co., Akron, Ohio.
Drouvé Co., G., Bridgeport, Conn.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Sheet Metal Work

American Blower Co., Detroit, Mich.
Berger Mfg. Co., Canton, Ohio.
Cole Mfg. Co., R. D., Newnan, Ga.
Graver, Wm., Tank Works, East Chicago, Ind.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Lupton's Sons Co., David, Allegheny Ave., & Witte St., Philadelphia, Pa.
Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
Union Iron Works, Hoboken, N. J.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
Whitehead & Kales Iron Works, Detroit, Mich.

Sheets (Galvanized)

Berger Mfg. Co., Canton, Ohio.
Douglas, Geo. B., 29 Broadway, New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Garry Iron & Steel Co., Coe & Lake Sts., Cleveland.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.
Irwin, Thos. W., Mfg. Co., N. S. Pittsburg, Pa.
Riverside Bridge Co., Martin's Ferry, Ohio.
Scully Steel & Iron Co., Chicago, Ill.
Whitehead & Kales Iron Works, Detroit, Mich.

Sheets (Iron and Steel)

American Steel & Wire Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
Berger Mfg. Co., Canton, Ohio.
Douglas, Geo. B., 29 Broadway, New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Garry Iron & Steel Co., Coe & Lake Sts., Cleveland.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.
Janney, Steinmetz & Co., Philadelphia, Pa.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Kenwood Bridge Co., First Nat'l Bank Bldg., Chicago.
Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
Riverside Bridge Co., Martin's Ferry, Ohio.
Scully Steel & Iron Co., Chicago, Ill.
Virginia Bridge & Iron Co., Roanoke, Va.
Whitehead & Kales Iron Works, Detroit, Mich.

Sheets (Roofing)

Berger Mfg. Co., Canton, Ohio.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Garry Iron & Steel Co., Coe & Lake Sts., Cleveland.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.
Johns-Manville Co., H. W., 100 William St., New York.
Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
Riverside Bridge Co., Martin's Ferry, Ohio.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.

Shoring and Underpinning

Foundation Co., 115 Broadway, New York.
O'Rourke Engineering Construction Co., 345 Fifth Ave., New York.
Pneumatic Caisson Co., Nat'l State Bank Bldg., Troy, N. Y.
Wilkins, Grant, Atlanta, Ga.

Shovels and Picks (Hand)

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.

Mention "The Engineering Record" when writing.

Irwin, Thos. W., Mfg. Co., N. S., Pittsburg, Pa.
Lupton's Sons Co., David, Allegheny Ave., & Witte St.,
Philadelphia, Pa.
Mullins Co., W. H., Salem, Ohio.
Rendle, Arthur E., 18 W. 34th St., New York.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Star Expansion Bolt Co., 147 Cedar St., New York.
Van Noorden Co., E., 944 Massachusetts Ave., Boston.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Warner Co., Chas., Wilmington, Del.

Slag

Warner Co., Chas., Wilmington, Del.
Warren-Ehret Co., Land Title Bldg., Philadelphia, Pa.

Sluice Gates

Allis-Chalmers Co., Milwaukee, Wis.
American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Coffin Valve Co., Neponset, Boston, Mass.
Coldwell-Wilcox Co., Newburgh, N. Y.
Egleston, T. G., Ideal Bldg., Denver, Col.
Fox & Co., John, 253 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Pacific Tank Co., Equitable Bank Bldg., Los Angeles
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.

Sockets

Allis-Chalmers Co., Milwaukee, Wis.
Broderick & Bascom Rope Co., 805 N. Main St., St.
Louis, Mo.
Fairbanks Co., Broome & Lafayette Sts., New York.
Janney, Steinmetz & Co., Philadelphia, Pa.

Speaking Tubes

Ostrander & Co., W. R., 22 Dey St., New York.

Spikes (Railroad)

American Steel & Wire Co., Com'l Nat'l Bank Bldg.,
Chicago, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Koppel Co., Arthur, Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Springs (Steel)

American Steel & Wire Co., Com'l Nat'l Bank Bldg.,
Chicago, Ill.
Koppel Co., Arthur, Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.

Sprinkling Carts (See Street Sprinklers)

Stacks (See Chimneys)

Stairs (Spiral)

Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Standpipes, Tanks, Towers

Abenaque Machine Works, Westminster Sta., Vt.
Aberthaw Construction Co., 8 Beacon St., Boston, Mass.

Mention "The Engineering Record" when writing.

Aermotor Co., 1215 12th St., Chicago.
 American Bridge Co. of N. Y., 30 Church St., N. Y.
 Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
 Belmont Iron Works, 22d St. & Washington Ave.,
 Philadelphia, Pa.
 Carroll-Porter Boiler & Tank Co., Empire Bldg., Pitts-
 burg, Pa.
 Chicago Bridge & Iron Works, 105th and Throop Sts.,
 Chicago, Ill.
 Clinton Bridge & Iron Works, Clinton, Ia.
 Cole Mfg. Co., R. D. Newnan, Ga.
 Decatur Bridge Co., Decatur, Ill.
 Des Moines Bridge & Iron Co., Des Moines, Ia.
 East Jersey Pipe Co., 90 West St., New York.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Graver, Wm., Tank Works, East Chicago, Ind.
 Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
 Hennebique Construction Co., 1170 Broadway, N. Y.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Kenwood Bridge Co., First Nat'l Bank Bldg., Chi-
 cago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 McNeil & Bros. Co., James, Pittsburg, Pa.
 Memphis Bridge Co., Memphis, Tenn.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Morris Co., I. P., Philadelphia, Pa.
 National Wood Pipe Co., Equitable Bank Bldg., Los
 Angeles, Cal.
 Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
 Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
 Petroleum Iron Works, Sharon, Pa.
 Phillips & Worthington, 90 West St., New York.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Struthers-Wells Co., Warren, Pa.
 Tidewater Iron Works, 8th & Jefferson Sts., Hoboken,
 N. J.
 Tippet & Wood, Phillipsburg, N. J.
 Traylor Engineering Co., Allentown, Pa.
 U. S. Wind Engine & Pump Co., 28 Water St., Ba-
 tavia, Ill.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Warren Construction Co., Warren, Ohio.
 Wendnagel & Co., 22d & Jefferson Sts., Chicago, Ill.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wilkins, Grant, Atlanta, Ga.
 Wisconsin Bridge & Iron Co., No. Milwaukee, Wis.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Steam Specialties

American Blower Co., Detroit, Mich.
 American District Steam Co., Lockport, New York.
 American Injector Co., Detroit, Mich.
 American Stoker Co., 11 Broadway, New York.
 Baldwin, William J., World Bldg., New York.
 Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Johns-Manville Co., H. W., 100 William St., New York.
 Lunkenheimer Co., Cincinnati, Ohio.
 Moran Flexible Steam Joint Co., Louisville, Ky.
 Powell Co., Wm., 2525 Spring Grove Ave., Cincinnati

Mention "The Engineering Record" when writing.

Power Specialty Co., 111 Broadway, New York.
Walworth Mfg. Co., Boston, Mass.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Steamboat Ratchets

Patterson Co., W. W., 54 Water St., Pittsburg, Pa.
Terry & Tench Co., 131st St. & Lexington Ave., N. Y.

Steel Plate Construction

American Bridge Co. of N. Y., 30 Church St., N. Y.
Archer Iron Works, Inc., 34th Pl. & Western Ave.,
Chicago, Ill.
Baltimore Bridge Co., Baltimore, Md.
Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
Belmont Iron Works, 22d St. & Washington Ave.,
Philadelphia, Pa.
Burger Iron Co., Akron, Ohio.
Canton Bridge Co., Canton, Ohio.
Carnegie Steel Co., Pittsburg, Pa.
Chicago Bridge & Iron Works, 105th & Throop Sts.,
Chicago, Ill.
Decatur Bridge Co., Decatur, Ill.
Douglas, Geo. B., 29 Broadway, New York.
Graver, Wm., Tank Works, East Chicago, Ind.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Kenwood Bridge Co., First Nat'l Bank Bldg., Chicago.
Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
Memphis Bridge Co., Memphis, Tenn.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Morris Co., I. P., Philadelphia, Pa.
Petroleum Iron Works, Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Riverside Bridge Co., Martin's Ferry, Ohio.
Traylor Engineering Co., Allentown, Pa.
Union Iron Works, Hoboken, N. J.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
Warren Construction Co., Warren, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.
Wilkins, Grant, Atlanta, Ga.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Steel (Reinforcing, (See Reinforcement Steel for Concrete Structures)

Steel Ribs and Lagging

Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
Belmont Iron Works, 22d St. & Washington Ave., Phila-
delphia, Pa.
Carnegie Steel Co., Pittsburg, Pa.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.

Steel Substructures for Tanks

American Bridge Co. of N. Y., 30 Church St., New York.
Baltimore Bridge Co., Baltimore, Md.
Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
Belmont Iron Works, 22d St. & Washington Ave.,
Philadelphia, Pa.
Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
Burger Iron Co., Akron, Ohio.
Chicago Bridge & Iron Works, 105th & Throop Sts.,
Chicago, Ill.
Decatur Bridge Co., Decatur, Ill.

Mention "The Engineering Record" when writing.

Des Moines Bridge & Iron Co., Des Moines, Ia.
 Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Kenwood Bridge Co., First Nat'l Bank Bldg., Chicago.
 King Bridge Co., Cleveland, Ohio.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Memphis Bridge Co., Memphis, Tenn.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B. 221 1st Ave., Pittsburg, Pa.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 U. S. Wind Engine & Pump Co., 23 Water St., Batavia, Ill.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wilkins, Grant, Atlanta, Ga.
 Wisconsin Bridge & Iron Co., No. Milwaukee, Wis.

Steel (Tape Line)

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Lufkin Rule Co., Saginaw, Mich.

Stokers (Mechanical)

American Blower Co., Detroit, Mich.
 American Ship Windlass Co., Providence, R. I.
 American Stoker Co., 11 Broadway, New York.
 Babcock & Wilcox Co., 85 Liberty St., New York.
 Green Engineering Co., 115 Adams St., Chicago, Ill.
 Murphy Iron Works, Detroit, Mich.
 Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.
 Westinghouse Machine Co., Pittsburg, Pa.
 Williamson Bros. Co., Philadelphia, Pa.

Stone (Broken and Quarried)

Buckingham Slate Co., Richmond, Va.
 Eureka Tray, Rock & Quarry Co., Astoria, N. Y.
 National Lime & Stone Co., Carey, Ohio.
 Rockport Granite Co., Rockport, Mass.
 Warner Co., Chas., Wilmington, Del.
 Woodward Co., A. H., Newark, N. J.

Stone Crusher Parts and Repairs

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
 Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Chain Belt Co., Milwaukee, Wis.
 Climax Road Machine Co., Marathon, N. Y.
 Coldwell Wilcox Co., Newburgh, N. Y.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.
 Longenecker & Co., Chas., 150 Nassau St., New York.
 Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
 Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
 Power & Mining Machinery Co., Cudahy, Wis.
 Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
 Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Traylor Engineering Co., Allentown, Pa.
 Universal Road Machinery Co., 120 Liberty St., N. Y.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Stone Dressing Machines

Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.

Mention "The Engineering Record" when writing.

Straightening Machines (Angle, Beam and Channel), (See Bending, Straightening and Punching Machines)

Strainers (Pump)

American Injector Co., Detroit, Mich.
American Well Works, Aurora, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Douglas, W. & B., Middletown, Conn.
Edson Mfg. Co., 255 Atlantic Ave., Boston, Mass.
Emerson Steam Pump Co., Alexandria, Va.
Goulds Mfg. Co., Seneca Falls, N. Y.
Lawrence Machine Co., Lawrence, Mass.

Strainers (Well)

American Injector Co., Detroit, Mich.
American Well Works, Aurora, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Douglas, W. & B., Middletown, Conn.
Goulds Mfg. Co., Seneca Falls, N. Y.
Phillips & Worthington, 90 West St., New York.
Sweeney & Gray, 81 Sixth St., Long Island City, N. Y.

Street - Cleaning Implements, Machinery and Snow Plows

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Barron, Jas. S., 133 Franklin St., New York.
Climax Road Machine Co., Marathon, N. Y.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Troy Works Co., S. Walnut St., Troy, Ohio.

Street Sprinklers

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Graver, Wm., Tank Works, East Chicago, Ind.
Longenecker & Co., Chas., 150 Nassau St., Chicago, Ill.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Sproul, Harvey B., Peekskill, N. Y.

**Structural and Ornamental Iron Works
(See Ironwork, Architectural and Ornamental)**

Structural Material

American Bridge Co. of N. Y., 30 Church St., N. Y.
Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
Burger Iron Co., Akron, Ohio.
Canton Bridge Co., Canton, Ohio.
Carnegie Steel Co., Pittsburg, Pa.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Ia.
Decatur Bridge Co., Decatur, Ill.
Douglas, Geo. B., 29 Broadway, New York.
Griffiths Iron W'ks. Co., 23d & Papin Sts., St. Louis, Mo.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Kenwood Bridge Co., First Nat'l Bank Bldg., Chicago, Ill.
Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
Memphis Bridge Co., Memphis, Penn.
Northern Engineering Works, Detroit, Mich.
Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.

Mention "The Engineering Record" when writing.

Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburgh, Pa.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Scully Steel & Iron Co., Chicago, Ill.
 Snare & Triest Co., 143 Liberty St., New York.
 Star Expansion Bolt Co., 147 Cedar St., New York.
 Steel Protected Concrete Co., Real Estate Trust Bldg., Philadelphia, Pa.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Wemlinger Steel Piling Co., 11 Broadway, New York.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wilkins, Grant, Atlanta, Ga.
 Youngstown Car Mfg. Co., Youngstown, Ohio.

Structural Steel

American Bridge Co. of N. Y., 30 Church St., N. Y.
 Baltimore Bridge Co., Baltimore, Md.
 Bellefontaine Bridge & Steel Co., Bellefontaine, Ohio.
 Belmont Iron Works, 22d St. & Washington Ave., Philadelphia, Pa.
 Berlin Construction Co., Berlin, Conn.
 Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
 Buffalo Steel Co., Tonawanda, N. Y.
 Burger Iron Co., Akron, Ohio.
 Calumet Steel Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
 Canton Bridge Co., Canton, Ohio.
 Carnegie Steel Co., Pittsburgh, Pa.
 Champion Bridge Co., Wilmington, Ohio.
 Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
 Climax Road Machine Co., Marathon, N. Y.
 Clinton Bridge & Iron Works, Clinton, Ia.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Decatur Bridge Co., Decatur, Ill.
 Des Moines Bridge & Iron Co., Des Moines, Ia.
 Dodge Co., J. M., Nicetown, Philadelphia, Pa.
 Douglas, Geo. B., 29 Broadway, New York.
 Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
 Hudson Structural Steel Co., 136th St. & Southern Blvd., New York.
 Inland Steel Co., First Nat'l Bank Bldg., Chicago, Ill.
 Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
 Jones & Laughlin Steel Co., Pittsburgh, Pa.
 Kenwood Bridge Co., First Nat'l Bank Bldg., Chicago, Ill.
 King Bridge Co., Cleveland, Ohio.
 Koppel Co., Arthur, Pittsburgh, Pa.
 Kratzer & Co., W. N., 3230 Smallman St., Pittsburgh, Pa.
 Lackawanna Steel Co., 2 Rector St., New York.
 Lindsay, W. W., & Co., Harrison Bldg., Philadelphia, Pa.
 Memphis Bridge Co., Memphis, Tenn.
 Milwaukee Bridge Co., Milwaukee, Wis.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Noelke-Richards Iron Works, Indianapolis, Ind.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburgh, Pa.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Scully Steel & Iron Co., Chicago, Ill.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia, Pa.

Mention "The Engineering Record" when writing.

Snare & Triest Co., 143 Liberty St., New York.
Terry & Tench Co., 131st St. & Lexington Ave., N. Y.
Virginia Bridge & Iron Co., Roanoke, Va.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Warren Construction Co., Warren, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.
Wilkins, Grant, Atlanta, Ga.
Wisconsin Bridge & Iron Co., No. Milwaukee, Wis.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zellicker Supply Co., Walter A., St. Louis, Mo.

Sulphate of Iron

Carnegie Steel Co., Pittsburg, Pa.

Superheaters

Babcock & Wilcox Co., 85 Liberty St., New York.
Parker Boiler Co. Pennsylvania Bldg., Philadelphia, Pa.
Power Specialty Co., 111 Broadway, New York.

Switchboards

Allis-Chalmers Co., Milwaukee, Wis.
General Electric Co., Schenectady, N. Y.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.

Switch Stands and Switches (See Frogs and Switches)

Tanks and Towers (Water), (See Stand-pipes, Tanks, Towers)

Tanks (Air Compressors)

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Carroll-Porter Boiler & Tank Co., Empire Bldg., Pittsburg, Pa.
Conklin, H. O., Equipment Co., Harvey, Ill.
Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
East Jersey Pipe Co., 90 West St., New York.
Graver, Wm., Tank Works, East Chicago, Ind.
Independent Pneumatic Tool Co., Thor Bldg., Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
International Steam Pump Co., 115 Broadway, N. Y.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Janney, Steinmetz & Co., Philadelphia, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Morris, Co., I. P., Philadelphia, Pa.
Northern Engineering Works, Detroit, Mich.
Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
Petroleum Iron Works, Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Potter Co., H. K., Trust Bldg., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Struthers-Wells Co., Warren, Pa.
Union Steam Pump Co., Battle Creek, Mich.

Tanks (Condensers)

Allis-Chalmers Co., Milwaukee, Wis.
Carroll-Porter Boiler & Tank Co., Empire Bldg., Pittsburg, Pa.
East Jersey Pipe Co., 90 West St., New York.
Graver, Wm., Tank Works, East Chicago, Ind.
International Steam Pump Co., 115 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
Petroleum Iron Works, Sharon, Pa.

Mention "The Engineering Record" when writing.

Phoenix Iron Works Co., Meadville, Pa.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Struthers-Wells Co., Warren, Pa.

Tanks (Creosoting)

Allis-Chalmers Co., Milwaukee, Wis.
Carbolineum Wood Preserving Co., 349 West Broadway,
New York.
Carroll-Porter Boiler & Tank Co., Empire Bldg., Pitts-
burg, Pa.
Chicago Bridge & Iron Works, 105th & Throop Sts.,
Chicago, Ill.
Cole Mfg. Co., R. D. Newnan, Ga.
Graver, Wm., Tank Works, East Chicago, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Petroleum Iron Works, Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Power & Mining Machinery Co., Cudahy, Wis.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
Struthers-Wells Co., Warren, Pa.
Taylor Engineering Co., Allentown, Pa.

Tanks (Flush)

Lake Erie Engineering Works, Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Pacific Flush Tank Co., 184 La Salle St., Chicago, Ill.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.

Tanks (Wooden)

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Flint & Walling Mfg. Co., Kendallville, Ind.
Longenecker & Co., Chas., 150 Nassau St., New York.
National Wood Pipe Co., Equitable Bank Bldg., Los
Angeles, Cal.
Pacific Tank Co., Equitable Bank Bldg., Los Angeles,
Cal.
Portland Wood Pipe Co., Box 4038, Portland, Ore.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
U. S. Wind Engine & Pump Co., 28 Water St., Ba-
tavia, Ill.
Wendnagel & Co., 22d & Jefferson Sts., Chicago, Ill.

Tapes (Steel), (See Engineers' and Survey- ors' Instruments and Supplies, also Rules and Tapes)

Tapping Machines

Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Smith, A. P., Mfg. Co., Newark, N. J.
Water Works Equipment Co., 50 Church St., New York.

Tar

Barrett Mfg. Co., 17 Battery Pl., New York.
Warren-Ehret Co., Land Title Bldg., Philadelphia, Pa.

Technical Books (See Books, Engineering and Technical)

Tees (See Structural Steel)

Terra Cotta (Architectural)

Patton Clay Mfg. Co., Patton, Cambria Co., Pa.

Terra Cotta (Fireproofing)

National Fire Proofing Co., 115 Adams St., Chicago, Ill.
Patton Clay Mfg. Co., Patton, Cambria Co., Pa.
Warner Co., Chas., Wilmington, Del.

Mention "The Engineering Record" when writing.

Testing Laboratories (Chemists, Etc.)

Conard, Wm. R., Burlington N. J.
Dow & Smith, 24 East 21st St., New York.
Gulick-Henderson & Co., 439 Third Ave., Pittsburg, Pa.
Hallett, Nelson A., 1 Ashburton Pl., Boston, Mass.
Hunt & Co., Robert W., Monongahela Bank Bldg.,
Pittsburg, Pa.
Lehigh Valley Testing Laboratory, Allentown, Pa.
Love, E. G., 122 Bowery, New York.
McKenna, C. F., Hudson Terminal, New York.

Thimble (Wire Rope)

American Steel & Wire Co., Com'l Nat'l Bank Bldg.,
Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St.
Louis, Mo.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Leschen & Sons Rope Co., A., St. Louis, Mo.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Roebbling's Sons Co., John A., Trenton, N. J.

Ties (Steel and Wood)

Barber Asphalt Paving Co., Maurer, N. J.
Carnegie Steel Co., Pittsburg, Pa.
Douglas, Geo. B., 29 Broadway, New York.
Gulfport Creosoting Co., Gulfport, Miss.
Wyckoff Pipe & Creosoting Co., Inc., 50 Church St.,
New York.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Tile

American District Steam Co., Lockport, New York.
Climax Road Machine Co., Marathon, N. Y.
National Paving Brick Mfg. Assoc., Board of Trade
Bldg., Indianapolis, Ind.
Patton Clay Mfg. Co., Patton, Cambria, Co., Pa.
Trussed Concrete Steel Co., Trussed Concrete Bldg.,
Detroit, Mich.
Warren-Ehret Co., Land Title Bldg., Philadelphia, Pa.

Tipples and Bunkers

Burger Iron Co., Akron, Ohio.
Dodge Co., J. M., Nicetown, Philadelphia, Pa.
Heyl & Patterson, Inc., Pittsburg, Pa.
Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
Wisconsin Bridge & Iron Co., No. Milwaukee, Wis.

Track (Cast-Iron Plate)

Hunt Co., C. W., West New Brighton, N. Y.
Indianapolis Switch & Frog Co., Springfield, Ohio.
Lake Erie Engineering Works, Buffalo, N. Y.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Track Tools

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Fairbanks Co., Broome & Lafayette Sts., New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
McCoy Co., Henry J., 67 Dey St., New York.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Track (Portable), (See Rails and Track)

Traction Ditching Machines

Austin Mfg. Co., 307 Dearborn St., Chicago, Ill.
Flory, S., Mfg. Co., Bangor, Pa.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Kingston Mfg. Co., Wilkesbarre, Pa.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
Parsons Co., G. W., Observatory Bldg., Des Moines, Ia.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Shadegg Engine Co., 315 Third St. So., Minneapolis.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Tramways (Overhead)

American Steel & Wire Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Dodge Co., J. M., Nicetown, Philadelphia, Pa.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St., New York.
Northern Engineering Works, Detroit, Mich.
Union Iron Works, Hoboken, N. J.
Wonham, Magon Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Tramways (Wire Rope)

American Steel & Wire Co., Com'l Nat'l Bank Bldg., Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Conklin, H. O., Equipment Co., Harvey, Ill.
Flory, S., Mfg. Co., Bangor, Pa.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Monighan Machine Co., 823 Carroll Ave., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St., New York.
Roebbling's Sons Co., John A., Trenton, N. J.

Transits

Ainsworth, Wm., & Sons, Denver, Col.
Architects' & Engineers' Supply Co., 1010 Grand Ave., Kansas City, Mo.
Berger, C. L., & Sons, 37 Williams St., Boston, Mass.
Buff & Buff Mfg. Co., Boston, Mass.
Hanna Mfg. Co., Troy, N. Y.
Iszard-Warren Co., Inc., 1122 Vine St., Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., New York.
Kolesch & Co., 138 Fulton St., New York.
Prince, L. M., 108 W. Fourth St., Cincinnati, Ohio.
Surveyors' Instrument Exchange, Box 943, Phila., Pa.
Williams, Brown & Earle 918 Chestnut St., Phila., Pa.

Transmission Rope (See, Rope, Transmission Power)

Mention "The Engineering Record" when writing.

Transmission Towers (Steel)

Aermotor Co., 1215 12th St., Chicago, Ill.
Wendnagel & Co., 22nd & Jefferson Sts., Chicago, Ill.

Traps (Steam)

American Blower Co., Detroit, Mich.
American District Steam Co., Lockport, New York.
American Radiator Co., 104 W. 42d St., New York.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Golden-Anderson Valve Specialty Co., 105 Sixth St.,
Pittsburg, Pa.
Jenkins Bros., 71 John St., New York.
Morris Co., I. P., Philadelphia, Pa.
Schott, W. H., 125 Monroe St., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Mass.

Tree Guards (Iron)

Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Stewart Iron Works Co., Cincinnati, Ohio.

Trench Braces

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Conklin, H. O., Equipment Co., Harvey, Ill.
Duff Mfg. Co., N. S., Pittsburg, Pa.
Dunn Mfg. Co., N. S., Pittsburg, Pa.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Tidewater Iron Works, 8th & Jefferson Sts., Hoboken,
N. J.

Trench Excavating Machinery

Carson Trench Machine Co., 16 Dorrance St., Boston,
Mass.
Conklin, H. O., Equipment Co., Harvey, Ill.
Edson Mfg. Co., 255 Atlantic Ave., Boston, Mass.
Flory S., Mfg. Co., Bangor, Pa.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Inter-State Equipment & Engineering Co., 305 Old Col-
ony Bldg., Chicago, Ill.
Kingston Mfg. Co., Wilkesbarre, Pa.
Lambert Hoisting Engine Co., Newark, N. J.
Municipal Engineering & Contracting Co., Railway Ex-
change, Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
New York Cableway & Engineering Co., 1 Rector St.,
New York.
Parsons, G. W., Co., Observatory Bldg., Des Moines, Ia.
St. Paul Ditcher & Carrier Co., St. Paul, Minn.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Trolleys

Browning, Victor R., & Co., Cleveland, Ohio.
Channon Co. H., Market & Randolph Sts., Chicago, Ill.
Chisholm & Moore Mfg. Co., Cleveland, Ohio.
Fairbanks Co., Broome & Lafayette Sts., New York.
Hunt Co., C. W., West New Brighton, N. Y.
Kiesler Co., 72 Pratt St., Chicago, Ill.
Northern Engineering Works, Detroit, Mich.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Union Iron Works, Hoboken, N. J.
Westinghouse Elec. & Mfg. Co., Pittsburg, Pa.
White & Co., J. G., Inc., 43 Exchange Pl., New York.
Whitehead & Kales Iron Works, Detroit, Mich.

Mention "The Engineering Record" when writing.

Tube Mills

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Power & Mining Machinery Co., Cudahy, Wis.
Prosser, Thos., & Son ("Krupp"), 15 Gold St., N. Y.
Raymond Bros. Impact Pulverizer Co., 145 Laflin St., Chicago, Ill.
Smidth & Co., F. L., 50 Church St., New York.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Traylor Engineering Co., Allentown, Pa.

Tubes (Boiler)

Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Turbine Pumps

Alberger Pump Co., 95 Liberty St., New York.
Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
Buffalo Steam Pump Co., Buffalo, N. Y.
De Laval Steam Turbine Co., Trenton, N. J.
Erie Pump & Engine Co., Erie, Pa.
International Steam Pump Co., 115 Broadway, N. Y.
Jeanesville Iron Works Co., Hazleton, Pa.
Lawrence Machine Co., Lawrence, Mass.
Morris Co., I. P., Philadelphia, Pa.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Prescott, Fred. M., Steam Pump Co., Milwaukee, Wis.
Schott, W. H., 125 Monroe St., Chicago, Ill.
Watson-Stillman Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Turbines (Hydraulic)

Allis-Chalmers Co., Milwaukee, Wis.
Erie Pump & Engine Co., Erie, Pa.
Leffel & Co., James, Springfield, Ohio.
Morris Co., I. P., Philadelphia, Pa.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Prescott, Fred. M., Steam Pump Co., Milwaukee, Wis.
Smith Co., S. Morgan, York, Pa.

Turbines (Steam)

Alberger Pump Co., 95 Liberty St., New York.
Allis-Chalmers Co., Milwaukee, Wis.
De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 121 S. 11th St., Phila., Pa.
General Electric Co., Schenectady, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Osburn Co., B. M., Com'l Nat'l Bank Bldg., Chicago, Ill.
Sturtevant, B. F., Co., Hyde Park, Mass.
Westinghouse Machine Co., Pittsburg, Pa.

Turnbuckles

Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Conklin, H. O., Equipment Co., Harvey, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Janney, Steinmetz & Co., Philadelphia, Pa.
Kratzer & Co., W. N., 3230 Smallman St., Pittsburg, Pa.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Pittsburgh Mfg. Co., Pittsburg, Pa.
Roebbling's Sons Co., John A., Trenton, N. J.
Scully Steel & Iron Co., Chicago, Ill.
Virginia Bridge & Iron Co., Roanoke, Va.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Mention "The Engineering Record" when writing.

Turntables

Boston Bridge Works, Inc., 47 Winter St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Chicago Bridge & Iron Works, 105th & Throop Sts.,
Chicago, Ill.
Conklin, H. O., Equipment Co., Harvey, Ill.
Hunt Co., C. W., West New Brighton, N.Y.
Jackson, Geo. W., Inc., 179 W. Jackson Blvd., Chicago, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Northern Engineering Works, Detroit, Mich.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Pennsylvania Steel Co., B. & C. Dept., Steelton, Pa.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Turntables (Overhead)

Northern Engineering Works, Detroit, Mich.
Star Expansion Bolt Co., 147 Cedar St., New York.
Union Iron Works, Hoboken, N. J.

Twine (Jute)

American Mfg. Co., 65 Wall St., New York.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.

Vacuum Cleaning Apparatus

Spencer Turbine Cleaner Co., Hartford, Conn.

Valves (Air)

American District Steam Co., Lockport, New York.
American Well Works, Aurora, Ill.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Dallett Co., Thos. H., 23d & York Sts., Philadelphia, Pa.
Fairbanks Co., Broome & Lafayette Sts., New York.
Gurney Heater Mfg. Co., 200 Franklin St., Boston, Mass.
Ingersoll Rand Co., 11 Broadway, New York.
Jenkins Bros., 71 John St., New York.
Lunkenheimer Co., Cincinnati, Ohio.
Morris Co., I. P., Philadelphia, Pa.
National Wood Pipe Co., Equitable Bank Bldg., Los
Angeles, Cal.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Powell Co., William, 2525 Spring Grove Ave., Cincinnati.
Simplex Valve & Meter Co., 112 N. Broad St., Phila., Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Valves (Blow-off)

American Well Works, Aurora, Ill.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Golden Anderson Valve Specialty Co., 105 6th St., Pitts-
burg, Pa.
Jenkins Bros., 71 John St., New York.
Lunkenheimer Co., Cincinnati, Ohio.
National Wood Pipe Co., Equitable Bank Bldg., Los
Angeles, Cal.
Powell Co., Wm., 2525 Spring Grove Ave., Cincinnati.
Scully Steel & Iron Co., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Mention "The Engineering Record" when writing.

Valves, (Angle, Check, Gate and Globe, for Water and Steam)

American District Steam Co., Lockport, New York.
American Well Works, Aurora, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Chapman Valve Mfg. Co., 49 John St., New York.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Coldwell-Wilcox Co., Newburgh, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Flint & Walling Mfg. Co., Kendallville, Ind.
Fox & Co., John, 253 Broadway, New York.
Golden Anderson Valve Specialty Co., 105 6th St., Pittsburgh, Pa.
Gurney Heater Mfg. Co., 200 Franklin St., Boston, Mass.
Jenkins Bros., 71 John St., New York.
International Steam Pump Co., 115 Broadway, N. Y.
Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
Lunkenheimer Co., Cincinnati, Ohio.
National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Powell Co., Wm., 2525 Spring Grove Ave., Cincinnati.
Power Specialty Co., 111 Broadway, New York.
Smith, A. P., Mfg. Co., Newark, N. J.
Wiener Co., Ernst, Fulton & Church Sts., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Valves (Foot)

American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Dayton Hydraulic Machinery Co., Dayton, Ohio.
Emerson Steam Pump Co., Alexandria, Va.
Fairbanks Co., Broome & Lafayette Sts., New York.
Flint & Walling Mfg. Co., Kendallville, Ind.
Fox & Co., John, 253 Broadway, New York.
International Steam Pump Co., 115 Broadway, N. Y.
Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
Lawrence Machine Co., Lawrence, Mass.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Valves (Pump)

American Well Works, Aurora, Ill.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.
Flint & Walling Mfg. Co., Kendallville, Ind.
Goulds Mfg. Co., Seneca Falls, N. Y.
International Steam Pump Co., 115 Broadway, N. Y.
Jenkins Bros., 71 John St., New York.
Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
Worthington, Henry R., 115 Broadway, New York.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Valves (Pressure Reducing)

American District Steam Co., Lockport, New York.
American Well Works, Aurora, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Golden Anderson Valve Specialty Co., 105-6th St., Pittsburgh, Pa.
Jenkins Bros., 71 John St., New York.

Mention "The Engineering Record" when writing.

Walworth Mfg. Co., Boston, Mass.
Watson-Stillman Co., 50 Church St., New York.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Valves (Regulating)

American District Steam Co., Lockport, New York.
American Well Works, Aurora, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Golden Anderson Valve Specialty Co., 105 6th St., Pittsburgh, Pa.
Jenkins Bros., 71 John St., New York.
Simplex Valve & Meter Co., 112 N. Broad St., Philadelphia, Pa.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Valves (Safety)

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Jenkins Bros., 71 John St., New York.
Lunkenheimer Co., Cincinnati, Ohio.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Valves (Sluice)

American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Coldwell-Wilcox Co., Newburgh, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Fox & Co., John, 253 Broadway, New York.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Smith Co., S. Morgan, York, Pa.
Vulcan Iron Works, 28 W. Irving Ave., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Valves (Water Relief)

Alberger Pump Co., 95 Liberty St., New York.
American Spiral Pipe Works, P. O. Box 485, Chicago, Ill.
American Well Works, Aurora, Ill.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Atlantic Hydraulic Machinery Co., Drexel Bldg., Philadelphia, Pa.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Coldwell-Wilcox Co., Newburgh, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Golden Anderson Valve Specialty Co., 105 6th St., Pittsburgh, Pa.
International Steam Pump Co., 115 Broadway, N. Y.
Jenkins Bros., 71 John St., New York.
Lunkenheimer Co., Cincinnati, Ohio.
Morris Co., I. P., Philadelphia, Pa.
Walworth Mfg. Co., Boston, Mass.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Ventilating Apparatus

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Baldwin, William J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
New York Blower Co., Stewart Ave., Chicago, Ill.
Star Expansion Bolt Co., 147 Cedar St., New York.
Sturtevant, B. F., Co., Hyde Park, Mass.

Mention "The Engineering Record" when writing.

Ventilating Apparatus (Sash Operating)

Cassidy, Isaac, Summer Ave. & Erie R. R., Newark, N. J.
Drouvé Co., G., Bridgeport, Conn.
Hitchings & Co., 1170 Broadway, New York.
Lord & Burnham Co., Irvington-on-Hudson, N. Y.
Lupton's Sons Co., David, Allegheny Ave. & Witte St., Philadelphia, Pa.
Star Expansion Bolt Co., 147 Cedar St., New York.
Van Noorden Co., E., 944 Massachusetts Ave., Boston.

Ventilators

American Blower Co., Detroit, Mich.
Badger, E. B. & Sons Co., 75 Pitts St., Boston, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Burt Mfg. Co., Akron, Ohio.
Drouvé Co., G., Bridgeport, Conn.
Globe Ventilator Co., Troy, N. Y.
Irwin, Thos. W. Mfg. Co., N. S., Pittsburg, Pa.
Lupton's Sons Co., David, Allegheny Ave. & Witte St., Philadelphia, Pa.
New York Blower Co., Stewart Ave., Chicago, Ill.
Van Noorden Co., E., 944 Massachusetts Ave., Boston.

Wagons (Ash)

Eagle Wagon Works, Auburn, New York.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Studebaker Bros. Mfg. Co., South Bend, Ind.
Troy Wagon Works Co., S. Walnut St., Troy, Ohio.
Watson Wagon Co., Canastota, N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Wagons (Contractors')

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Avery Company, Peoria, Ill.
Bergen Point Iron Works, 149 Broadway, New York.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Burness Concrete Truck Co., Scarritt Bldg., Kansas City, Mo.
Climax Road Machine Co., Marathon, N. Y.
Conklin, H. O., Equipment Co., Harvey, Ill.
Eagle Wagon Works, Auburn, New York.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Koehring Machine Co., Milwaukee, Wis.
Longenecker & Co., Chas., 150 Nassau St., New York.
Marsh Co., 970 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 67 Dey St., New York.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
Sproul, Harvey B., Peekskill, N. Y.
Studebaker Bros., Mfg. Co., South Bend, Ind.
Troy Wagon Works Co., S. Walnut St., Troy, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Watson Wagon Co., Canastota, N. Y.
Youngstown Car Mfg. Co., Youngstown, Ohio.

Wagons (Dumping)

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Climax Road Machine Co., Marathon, N. Y.
Eagle Wagon Works, Auburn, New York.
Koppel Co., Arthur, Pittsburg, Pa.
Lally, Patrick, & Sons, 21 W. 1st St., S. Boston, Mass.
Longenecker & Co., Chas., 150 Nassau St., New York.
McCoy Co., Henry J., 67 Dey St., New York.

Mention "The Engineering Record" when writing.

National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
 Sproul, Harvey B., Peekskill, N. Y.
 Studebaker Bros., Mfg. Co., South Bend, Ind.
 Troy Wagon Works Co., S. Walnut St., Troy, Ohio.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Watson Wagon Co., Canastota, N. Y.
 Youngstown Car Mfg. Co., Youngstown, Ohio.

Wagons (Garbage)

Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
 Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
 Bergen Point Iron Works, 149 Broadway, New York.
 Eagle Wagon Works, Auburn, New York.
 Edson Mfg. Co., 255 Atlantic Ave., Boston, Mass.
 Koppel Co., Arthur, Pittsburg, Pa.
 Lally, Patrick & Sons, 21 W. 1st St., S. Boston, Mass.
 Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
 Studebaker Bros. Mfg. Co., South Bend, Ind.
 Troy Wagon Works Co., So. Walnut St., Troy, Ohio.
 Watson Wagon Co., Canastota, N. Y.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Youngstown Car Mfg. Co., Youngstown, Ohio.

Wagons (Oil)

Graver, Wm., Tank Works, East Chicago, Ind.
 Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
 Studebaker Bros. Mfg. Co., South Bend, Ind.

Wall Coping

Evens & Howard Fire Brick Co., St. Louis, Mo.
 Robinson Clay Product Co., Flatiron Bldg., New York.
 Warner Co., Chas., Wilmington, Del.

Washers (Air)

American Blower Co., Detroit, Mich.
 Buffalo Forge Co., Buffalo, N. Y.
 New York Blower Co., Stewart Ave., Chicago, Ill.

Water Columns

Golden Anderson Valve Specialty Co., 105 6th St., Pittsburg, Pa.
 Lunkenheimer Co., Cincinnati, Ohio.
 U. S. Wind Engine & Pump Co., 28 Water St., Batavia, Ill.

Water-Main Cleaning

National Water-Main Cleaning Co., 61 Park Row, N. Y.

Waterproofing

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.
 Aquabar Co., The, 1228 Locust St., Philadelphia, Pa.
 Barber Asphalt Paving Co., Maurer, N. J.
 Barrett Mfg. Co., 17 Battery Pl., New York.
 Elaterite Paint & Mfg. Co., Des Moines, Ia.
 Glidden Varnish Co., Cleveland, Ohio.
 Hydrex Felt & Engineering Co., 120 Liberty St., N. Y.
 Miller & Co., C. L., 110 E. 23d St., New York.
 Sicilian Asphalt Paving Co., 41 Park Row, New York.
 Standard Asphalt & Rubber Co., 205 La Salle St., Chicago, Ill.
 Texas Co., 17 Battery Pl., New York.
 Trussed Concrete Steel Co., Trussed Concrete Bldg., Detroit, Mich.
 Wadsworth, Howland & Co., 156 Fifth Ave., New York.

Mention "The Engineering Record" when writing.

Wadsworth Stone & Paving Co., Bessmer Bldg., Pittsburg, Pa.
Warner Co., Chas., Wilmington, Del.
Warren-Ehret Co., Land Title Bldg., Philadelphia, Pa.
Waterproofing Co., 147 E. 35th St., New York.

Waterproofing Compounds

American Asphaltum & Rubber Co., 600-609 The Harvester Bldg., Chicago, Ill.
Aquabar Co., The, 1228 Locust St., Philadelphia, Pa.
Barber Asphalt Paving Co., Maurer, N. J.
Elaterite Paint & Mfg. Co., Des Moines, Ia.
Glidden Varnish Co., Cleveland, Ohio.
Hydrex Felt & Engineering Co., 120 Liberty St., N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Knickerbocker Chemical Co., 24 & 26 Stone St., N. Y.
Miller & Co., C. L., 110 E. 23d St., New York.
Sandusky Portland Cement Co., Sandusky, Ohio.
Texas Co., 17 Battery Pl., New York.
Trussed Concrete Steel Co., Trussed Concrete Bldg., Detroit, Mich.
Vulcanite Portland Cement Co., Flatiron Bldg., N. Y.
Warner Co., Chas., Wilmington, Del.
Warren-Ehret Co., Land Title Bldg., Philadelphia, Pa.

Water Softeners

Booth Co., L. M., 136 Liberty St., New York.
Chicago Bridge & Iron Works, 105th & Throop Sts., Chicago, Ill.
Graver, Wm., Tank Works, East Chicago, Ind.
Jewell Engineering Co., Cable Bldg., Chicago, Ill.
New York Continental Jewell Filtration Co., Mills Bldg., New York.
Pittsburg Filter Mfg. Co., Farmers' Bank Bldg., Pittsburg, Pa.
Purification & Engineering Co., 52 Church St., N. Y.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.

Waterworks (Air Pressure)

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Shadegg Engine Co., 315 Third St. So., Minneapolis.

Weighing Machinery

Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., Broome & Lafayette Sts., New York.
Standard Scale & Supply Co., 52 S. Canal St., Chicago, Ill.
Wallace Hoist Sales Co., Ft. Wayne, Ind.

Welding Processes

Davis-Bournonville Co., 88 West St., New York.
Goldschmidt, Thermit, Co., 90 West St., New York.

Well-Drilling Machinery

American Mfg. Co., 65 Wall St., New York.
American Well Works, Aurora, Ill.
Artesian Well & Supply Co., Banigan Bldg., Providence, R. I.
Austin Mfg. Co., 315 Dearborn St., Chicago, Ill.
Austin-Western Co., Ltd., 315 Dearborn St., Chicago, Ill.
Broderick & Bascom Rope Co., 805 N. Main St., St. Louis, Mo.
Carnegie Steel Co., Pittsburg, Pa.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Dean Bros. Steam Pump Co., Indianapolis, Ind.
Douglas, W. & B., Middletown, Conn.
Dow, Geo. E., Pumping Engine Co., San Francisco, Cal.

Mention "The Engineering Record" when writing.

Epping-Carpenter Co., Pittsburg, Pa.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Huron Steel & Iron Co., Norwalk, Ohio.
 Ingersoll-Rand Co., 11 Broadway, New York.
 International Steam Pump Co., 115 Broadway, New York.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Keystone Driller Co., Beaver Falls, Pa.
 Laidlaw-Dunn-Gordon Co., 115 Broadway, New York.
 Leschen & Sons Rope Co., A. St. Louis, Mo.
 Phillips & Worthington, 90 West St., New York.
 Pittsburg Tubular Steel Whiffletree Co., Pittsburg, Pa.
 Struthers-Wells Co., Warren, Pa.
 Sweeney & Gray, 81 Sixth St., Long Island City, N. Y.
 Union Steam Pump Co., Battle Creek, Mich.

Wells

Artesian Well & Supply Co., Banigan Bldg., Providence, R. I.
 Phillips & Worthington, 90 West St., New York.

Wheelbarrows

Archer Iron Works, Inc., 34th Pl. & Western Ave., Chicago, Ill.
 Bond Co., Harold L., 140 Pearl St., Boston, Mass.
 Channon Co., H., Market & Randolph Sts., Chicago, Ill.
 Conklin, H. O., Equipment Co., Harvey, Ill.
 Fairbanks Co., Broome & Lafayette Sts., New York.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
 Koehring Machine Co., Milwaukee, Wis.
 McCoy Co., Henry J., 67 Dey St., New York.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith, T. L. Co., 305 Old Colony Bldg., Chicago, Ill.
 Standard Scale & Supply Co., 52 S. Canal St., Chicago, Ill.
 Sterling Wheelbarrow Co., Milwaukee, Wis.
 Toledo Wheelbarrow Co., Toledo, Ohio.
 Union Iron Works, Hoboken, N. J.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Wiener Co., Ernst, Fulton & Church Sts., New York.

Wheels (Car)

Archer Iron Works, Inc., 34th Pl. & Western Ave., Chicago, Ill.
 Carnegie Steel Co., Pittsburg, Pa.
 Douglas, Geo. B., 29 Broadway, New York.
 Du Bois Iron Works, Du Bois, Pa.
 Hunt Co., C. W., West New Brighton, N. Y.
 Koppel Co., Arthur, Pittsburg, Pa.
 McCoy Co., Henry J., 67 Dey St., New York.
 National Equipment Co., 276 Dearborn St., Chicago, Ill.
 Stuebner, G. L., Iron Works, Long Island City, N. Y.
 Union Iron Works, Hoboken, N. J.
 Wallace Hoist Sales Co., Ft. Wayne, Ind.
 Wonham, Magor Car & Mfg. Co., 30 Church St., N. Y.
 Youngstown Car Mfg. Co., Youngstown, Ohio.
 Zelnicker Supply Co., Walter A., St. Louis, Mo.

Wheels (Sprocket)

Burrell Mfg. Co., Bradley, Ill.
 Chain Belt Co., Milwaukee, Wis.
 Climax Road Machine Co., Marathon, N. Y.
 Cresson Co., Geo. V., Allegheny Ave., W. 17th St., Philadelphia, Pa.

Mention "The Engineering Record" when writing.

Iroquois Iron Works, 178 Walden Ave., Buffalo, N. Y.
Wallace Hoist Sales Co., Ft. Wayne, Ind.
Webster Mfg. Co., 1075 W. 15th St., Chicago, Ill.

Whistles

Powell, William, Co., 2525 Springrove Ave., Cincinnati.
Lunkenheimer Co., Cincinnati, Ohio.

Winches

American Hoist & Derrick Co., St. Paul, Minn.
American Ship Windlass Co., Providence, R. I.
Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clyde Iron Works, Duluth, Minn.
Contractors' Plant Mfg. Co., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., Broome & Lafayette Sts., New York.
Inter-State Equipment & Engineering Co., 305 Old Colony Bldg., Chicago, Ill.
National Equipment Co., 276 Dearborn St., Chicago, Ill.
Union Iron Works, Hoboken, N. J.

Windmills

Abenague Machine Works, Westminster Sta., Vt.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Flint & Walling Mfg. Co., Kendallville, Ind.
Griffiths Iron Works Co., 23d & Papin Sts., St. Louis.
U. S. Wind Engine & Pump Co., 28 Water St., Batavia, Ill.

Windmill Tanks

Aermotor Co., 1215 12th St., Chicago, Ill.
Abenague Machine Works, Westminster Sta., Vt.
Flint & Walling Mfg. Co., Kendallville, Ind.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
National Wood Pipe Co., Equitable Bank Bldg., Los Angeles, Cal.
Pacific Tank Co., Equitable Bank Bldg., Los Angeles.
Phillips & Worthington, 90 West St., New York.
Scaife & Sons Co., Wm. B., 221 1st Ave., Pittsburg, Pa.
U. S. Wind Engine & Pump Co., 28 Water St., Batavia, Ill.
Wendnagel & Co., 22d & Jefferson Sts., Chicago, Ill.

Window Frames and Sash (Fireproof)

Badger, E. B. & Sons Co., 63-75 Pitts St., Boston, Mass.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Irwin, Thos. W., Mfg. Co., N. S., Pittsburg, Pa.
Lupton's Sons, Co., David, Allegheny Ave. & Witte St., Philadelphia, Pa.
Mullins & Co., W. H., Salem, Ohio.
U. S. Fireproofing Co., 25 West 33d St., New York.

Window Guards (Wire and Iron)

Anchor Post Iron Works, 15 Church St., New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Northwestern Expanded Metal Co., Old Colony Bldg., Chicago, Ill.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Stewart Iron Works Co., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Windows (Metal), (See also Metallic Window Frame and Sash)

Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Irwin, Thos. W., Mfg. Co., N. S., Pittsburg, Pa.
Lupton's Sons Co., David, Allegheny Ave., & Witte St., Philadelphia, Pa.

Mention "The Engineering Record" when writing.

Rendle, Arthur E., 18 W. 34th St., New York.
Van Noorden Co., E., 944 Massachusetts Ave., Boston,
Mass.

Wire

American Steel & Wire Co., Com'l Nat'l Bank Bldg.,
Chicago, Ill.
Anchor Post Iron Works, 15 Church St., New York.
Clinton Wire Cloth Co., 1 Madison Ave., New York.
Douglas, Geo. B., 29 Broadway, New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Page Woven Wire Fence Co., Adrian, Mich.
Roebbling Construction Co., Fuller Bldg., New York.
Roebbling's Sons Co., John A., Trenton, N. J.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Wire (Brass and Copper)

Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Roebbling's Sons Co., John A., Trenton, N. J.

Wire Cloth

Allis-Chalmers Co., Milwaukee, Wis.
Climax Road Machine Co., Marathon, N. Y.
Clinton Wire Cloth Co., 1 Madison Ave., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Page Woven Wire Fence Co., Adrian, Mich.
Roebbling Construction Co., Fuller Bldg., New York.
Scully Steel & Iron Co., Chicago, Ill.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

Wire Fabric for Reinforcing Concrete

American Steel & Wire Co., Com'l Nat'l Bank Bldg.,
Chicago, Ill.
American System of Reinforcing, 189 La Salle St., Chi-
cago, Ill.
Clinton Wire Cloth Co., 1 Madison Ave., New York.
Griffiths Iron W'ks Co., 23d & Papin Sts., St. Louis, Mo.
Hough Co., Wm. B., Monadnock Blk., Chicago, Ill.
Page Woven Wire Fence Co., Adrian, Mich.

Wire Rope (See Rope [Wire])

Wood Block Paving

American Creosoting Co., 29 Broadway, New York.
Barber Asphalt Paving Co., Maurer, N. J.
Carbolineum Wood Preserving Co., 349 West Broadway,
New York.
U. S. Wood Preserving Co., 29 Broadway, New York.
Wilson Mfg. Co., Jas. G., 3 West 29th St., New York.
Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.

Wood Preservers

American Creosoting Co., 29 Broadway, New York.
Barber Asphalt Paving Co., Maurer, N. J.
Barrett Mfg. Co., 17 Battery Pl., New York.
Carbolineum Wood Preserving Co., 349 West Broadway,
New York.
Elaterite Paint & Mfg. Co., Des Moines, Ia.
Teredo Proof Paint Co., 17 Battery Pl., New York.
U. S. Wood Preserving Co., 29 Broadway, New York.
Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.

Mention "The Engineering Record" when writing.

Wrenches

Bond Co., Harold L., 140 Pearl St., Boston, Mass.
Channon Co., H., Market & Randolph Sts., Chicago, Ill.
Clow, Jas. B., & Sons, 350 Franklin St., Chicago, Ill.
Fairbanks Co., Broome & Lafayette Sts., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Greene, Tweed & Co., 109 Duane St., New York.
Janney, Steinmetz & Co., Philadelphia, Pa.
McCoy Co., Henry J., 67 Dey St., New York.
Scully Steel & Iron Co., Chicago, Ill.
Williams & Co., J. H., 150 Hamilton Ave., B'klyn, N. Y.
Zelnicker Supply Co., Walter A., St. Louis, Mo.

EMPLOYERS' LIABILITY INSURANCE

CONTRACTORS' BONDS

SPECIALIST ON CONTRACTORS' RISKS

in Any Part of the Country

Each Client Individually and Properly
Classified

WILLIAM T. RITCH, Inc.
1123 Broadway, New York

We furnish the *only* protection which insures you against *loss* or *expense* arising or resulting from *claims* for damages on account of bodily injuries or death accidentally suffered by any *employees* or the *public*.

Telephones { 1721 } Madison Sq.
 { 1722 }

Directory

of Manufacturers of and Dealers in

Engineers' and Contractors' Machinery and Supplies

A Classified List of Machinery and
Supplies manufactured or sold by adver-
tisers in the Seventh Annual Contractors'
Number of the Engineering Record

Copyright, 1910, by
McGraw Publishing Company

Published by
Engineering Record
239 West 39th Street
New York

Chicago
Philadelphia

Cleveland
London

ANNOUNCEMENT.

This is the third edition of this Directory, which is believed to be the only one published comprised exclusively of manufacturers of, and dealers in, machinery and supplies for engineers' and contractors' use.

It is offered to the subscribers and readers of the Engineering Record in the belief that it will be of considerably greater convenience and value than the preceding editions in view of the increased number of headings, improved both in accuracy and comprehensiveness, coupled with the numerous cross-reference headings which have been added.

It was not intended that this publication should be a complete directory of the trade, for the names listed therein are limited to those companies and individuals whose advertisements appeared in the Seventh Annual Contractors' Number of the Engineering Record dated April 2, 1910.

Of this third edition 20,500 copies have been printed and distributed among the regular subscribers to the Engineering Record, and to an additional special list of engineers, contractors, purchasing agents, etc., who are interested in the products manufactured and sold by its advertisers.

A CLASSIFIED LIST OF ENGINEERS' AND CONTRACTORS' MACHINERY AND SUPPLIES

Acetylene Lights

Milburn Co., Alexander, Baltimore, Md.

Air Compressors

Abenague Machine Works, Westminster Sta., Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.
Allis-Chalmers Co., Milwaukee, Wis.
American Air Compressor Works, 26 Cortlandt St., N. Y.
American Well Works, Aurora, Ill.
Baltimore Cooperage Co., 32 S. Howard St., Baltimore.
Blakeslee Mfg. Co., Du Quoin, Ill.
Builders' Material Supply Co., 301-335 Scarrett Bldg.,
Kansas City, Mo.
Channon Co., H., Chicago, Ill.
Dow Pumping Engine Co., Geo. E., 179 First St., San
Francisco.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Deming Co., Salem, Ohio.
Fairbanks Co., New York and Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hobbs-Ives Equipment & Machine Co., Norfolk, Va.
Independent Pneumatic Tool Co., 1307 Michigan Ave.,
Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York, N. Y.
International Steam Pump Co., 115 B'way, New York.
Inter-State Equipment & Engineering Co., 1775 Old Colony
Bldg., Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
McKiernan Drill Co., 115 Broadway, New York.
Mietz, August, 128-138 Mott St., New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave.,
Minneapolis, Minn.
Murray Iron Works Co., Burlington I.a
Norwalk Iron Works, South Norwalk, Conn.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Platt Iron Works Co., Dayton, Ohio.
Southwark F'dy & Machine Co., Philadelphia, Pa.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
U. S. Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Wickes Bros., 90 West St., New York.

Air Hose and Couplings

Allis-Chalmers Co., Milwaukee, Wis.
Boston Belting Co., Boston, Mass.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Independent Pneumatic Tool Co., 1307 Michigan Ave.,
Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Janney, Steinmetz & Co., Philadelphia, Pa.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blasting Supply Co., 11 Broadway, New York.
Revere Rubber Co., Boston, Mass.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Wood Drill Works, Paterson, N. J.

Mention "Engineering Record" when writing.

Air Lift Pumping Machinery

Abenague Machine Works, Westminster Station, Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.
Allis-Chalmers Co., Milwaukee, Wis.
American Air Compressor Works, 26 Cortlandt St., N. Y.
American Well Works, Aurora, Ill.
Builders Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco.
Fairbanks, Morse & Co., Chicago, Ill.
Hush, H. J., 39-41 Cortlandt St., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
Merritt & Co., 125 Front St., Camden, N. J.
Norwalk Iron Works, South Norwalk, Conn.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich.

Air Valves (Automatic)

Allis-Chalmers Co., Milwaukee, Wis.
American District Steam Co., Lockport, N. Y.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Jenkins Bros., New York.
Merritt & Co., 125 Front St., Camden, N. J.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Rensselaer Mfg. Co., Troy, N. Y.
Simplex Valve & Meter Co., Philadelphia, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Waterworks Equipment Co., 50 Church St., New York.

Alloys

Goldschmidt Thermit Co., 90 West St., New York.

Aluminum

Janney, Steinmetz & Co., Philadelphia, Pa.

Aluminum Solder

Janney, Steinmetz & Co., Philadelphia, Pa.

Angles (See Structural Steel)

Anvils

Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk Co., St. Paul, Minn.

Architects' Supplies

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Concrete Steel Engrg. Co., Park Row Bldg., New York.
Geier & Bluhm, Troy, N. Y.
Iszard-Warren Co., 136 N. 12th St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Lufkin Rule Co., Saginaw, Mich.
Wiebusch & Hilger, 106-110 Lafayette St., New York.
Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Architectural and Ornamental Iron Work (See Iron Work, Architectural and Ornamental)

Artesian Well Contractors

Artesian Well & Supply Co., Providence, R. I.
Cyclone Drill Co., Orrville, Ohio.
Phillips & Worthington, 90 West St., New York.

Mention "Engineering Record" when writing.

Artesian Well Pumps (See Pumps, Deep Well)

Artesian Wells, Tools and Pumps (See Well-Drilling Machinery)

Artists' Materials

Iszard-Warren Co., 136 N. 12th St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Lufkin Rule Co., Saginaw, Mich.
Mittineague Paper Co., Mittineague, Mass.

Asbestos and Asbestos Products

Asbestos Protected Metal Co., Canton, Mass.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Johns-Manville Co., H. W., 100 William St., New York.

Asphalt

American Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Eastern Asphalt Supply Co., 115 B'way, New York.
Gulf Refining Co., Frick Bldg. Annex, Pittsburg, Pa.
Minwax Co., 1123 Broadway, New York.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
Standard Asphalt & Rubber Co., 205 La Salle St., Chicago, Ill.
Texas Co., 17 Battery Pl., New York.

Asphalt Paving

American Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Blome Co., R. S., Unity Bldg., Bank Floor, Chicago, Ill.
Eastern Asphalt Supply Co., 115 B'way, New York.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
United Paving Co., Atlantic City, N. J.

Asphalt Plants and Tools

Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
Drake Standard Machine Works, 1023 W. Jackson Blvd. Chicago, Ill.
Erie Machine Shops, 13th & Peach Sts., Erie, Pa.
Godwin, W. S., Box 95, Times Sq. Sta., New York.
Iroquois Iron Works, Buffalo, N. Y.
Kelly-Springfield Road Roller Co., Springfield, Ohio.
Lake Erie Engineering Works, Buffalo, N. Y.
McCoy Co., Henry J., 65-67 Dey St., New York.
Ruggles-Coles Engrg. Co., 50 Church St., New York.
Union Iron Works, Hoboken, N. J.
Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Attorneys

King, Geo. A. & Wm. B., Washington, D. C.
Thompson, E. P., 1371 Columbia Rd., Washington, D. C.

Ball Mills

Allis-Chalmers Co., Milwaukee, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Prosser & Son, Thomas, 15 Gold St., New York.
Raymond Bros., Impact Pulverizer Co., 1500 Harrison St. Chicago, Ill.

Mention "Engineering Record" when writing.

Ballast Spreaders

Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Ballast Unloaders

Bucyrus Co., So. Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Marion Steam Shovel Co., Marion, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Banks

Coal & Iron National Bank, 143 Liberty St., New York.

Barges

American Bridge Co., 30 Church St., New York.
Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Milliken Bros., Milliken, N. Y.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.

Bars, Grate (See Grate Bars)

Bars (Steel)

American Bridge Co., 30 Church St., New York.
American System of Reinforcing, 189 La Salle St., Chicago, Ill.
Belmont Iron Works, Philadelphia, Pa.
Buffalo Steel Co., Tonawanda, N. Y.
Builders' Material Supply Co., 301-335 Scarrett Bldg., Kansas City, Mo.
Carnegie Steel Co., Pittsburg, Pa.
Concrete Steel Engrg. Co., Park Row Bldg., New York.
Concrete Steel Co., 29 Broadway, New York.
Corrugated Bar Co., 1410 Bank of Commerce Bldg., St. Louis, Mo.
General Fireproofing Co., Youngstown, Ohio.
Hough Co., W. B., Monadnock Blk., Chicago, Ill.
Inland Steel Co., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Kenwood Bridge Co., 1416 First Natl. Bank Bldg., Chicago, Ill.
Kratzer & Co., W. N., Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Milliken Bros., Milliken, N. Y.
Mitchell & Tappan, 122 Liberty St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Prosser & Sons, Thomas, 15 Gold St., New York.
Trussed Concrete Steel Co., Detroit, Mich.
Turner Construction Co., New York.
Virginia Bridge & Iron Co., Roanoke, Va.
Whitehead-Kales Iron Works, Detroit, Mich.

Beams (See Structural Steel)

Bearing Metals

Fairbanks Co., New York & Chicago.
Kenwood Bridge Co., 1416 First Nat'l Bank Bldg., Chicago.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Bearings (Ball and Roller)

Allis-Chalmers Co., Milwaukee, Wis.
Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., New York & Chicago.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Bearings (Oilless and Self-Oiling)

Allis-Chalmers Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Exeter Machine Works, Exeter, N. H.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co., Pittsburg, Pa.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
North American Metaline Co., 66 West Ave., Long Island City, N. Y.
Platt Iron Works Co., Dayton, Ohio.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.
Westinghouse Electric & Mfg. Co., East Pittsburg, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Bellows

Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Obermayer Co., S., Cincinnati, Ohio.

Belt Dressing

Channon Co., H., Chicago, Ill.
Dixon Crucible Co., Jos., Jersey City, N. J.
Fairbanks Co., New York & Chicago.
New York Leather Belting Co., 51 Beekman St., New York City.

Belt Tighteners

Allis-Chalmers Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Belting (Chain, Link, Canvas, Leather, Etc.)

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bird & Co., J. A. & W., Boston, Mass.
Boston Belting Co., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Conveying Weigher Co. 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., W. of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Goodrich Co., B. F., Akron, Ohio.
McCoy Co., Henry J., 65-67 Dey St., New York.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
National Belting Co., Lawrence, Mass.
New York Leather Belting Co., 51 Beekman St., N. Y.
Revere Rubber Co., Boston, Mass.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Mention "Engineering Record" when writing.

Benders (Rail)

Channon Co., H., Chicago, Ill.
Dudgeon, Richard, 24-26 Columbia St., New York.
Fairbanks Co., New York & Chicago.
McCoy Co., Henry J., 65-67 Dey St., New York.
Watson-Stillman Co., 58 Church St., New York.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Bending, Straightening and Punching Machines

Allis-Chalmers Co., Milwaukee, Wis.
Bertsch & Co., Cambridge City, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Dudgeon, Richard, 24 Columbia St., New York.
Fairbanks Co., New York & Chicago.
Fisher, Robert, 207 8th Ave., New York.
Hanson & Son, A. P., 106-108 W. Adams St., Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Pittsburg Mfg. Co., Pittsburg, Pa.
Watson-Stillman Co., 58 Church St., New York.
Wiener Machinery Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Blacksmiths' Tools

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.
Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Wiener Machinery Co., 50 Church St., New York.

Blast Furnaces and Fittings

Allis-Chalmers Co., Milwaukee, Wis.
Carroll-Porter Boiler & Tank Co., 907 Empire Building, Pittsburg, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
McNeil & Bros., James, Pittsburg, Pa.
Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Manufacturing Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.

Blast Hole Loaders

Pyro Clay Products Co., Oak Hill, Ohio.

Blasting Powder

American Dynalite Co., Amherst, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
DuPont de Nemours Powder Co., E. I., Wilmington, Del.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
National Powder Co., 200 Fifth Ave., New York.
New York Blasting Supply Co., 11 Broadway, New York.
Sinnamahoning Powder Co., Emporium, Pa.

Blocks and Tackle

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Broderick & Bascom Rope Co., St. Louis, Mo.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.

Mention "Engineering Record" when writing.

Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Maine Electric Co., Portland, Maine.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Vulcan Iron Works, Chicago, Ill.

Blocks and Trolleys

Chisholm & Moore Mfg. Co., Cleveland, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fairbanks Co., New York & Chicago.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Maine Electric Co., Portland, Maine.
Patterson Co., W. W., Pittsburg, Pa.
Whitehead & Kales Iron Works, Detroit, Mich.

Block Machines (See Building Block Mchys.)

Blowers

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Cyclone Drill Co., Orrville, Ohio.
De Laval Steam Turbine Co., Trenton, N. J.
Exeter Machine Works, Exeter, N. H.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
General Electric Co., Schenectady, N. Y.
Green Fuel Economizer Co., Mattewan, N. Y.
New York Blower Co., Chicago, Ill.
Obermayer Co., S., Cincinnati, Ohio.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Wickes Bros., 90 West St., New York.
Wing Mfg. Co., L. J., 90 West St., New York.

Blue Print Filing Cabinets

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Hamilton Mfg. Co., Rahway, N. J.
Iszard-Warren Co., 138 N. 12th St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Blue Printing Machinery

Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Buckeye Engine Co., Salem, Ohio.
General Electric Co., Schenectady, N. Y.
Iszard-Warren Co., 138 N. 12th St., Philadelphia, Pa.
Kolesch & Co., 138 Fulton St., New York.
Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Boiler Fittings, Mountings and Tubes

American Radiator Co., New York & Chicago.
Lunkenheimer Co., Cincinnati, Ohio.
Murray Iron Works, Burlington, Iowa.
Smith & Son Co., Samuel, Paterson, N. J.
Zelnicker Supply Co., W. A., 406 N. Fourth St., St. Louis, Mo.

Mention "Engineering Record" when writing.

Boiler Makers' Punching Machines

Bertsch & Co., Cambridge City, Ind.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Dudgeon, Richard, 24 Columbia St., New York.
Pels & Co., Henry, 90 West St., New York.
Wiener Machinery Co., 50 Church St., New York.

Boiler Tubes

Lake Erie Engineering Works, Buffalo, N. Y.
Marine Metal & Supply Co., 167 South St., New York.
McDowell & Co., Grant & Western Aves, Allegheny, Pa.
Murray Iron Works Co., Burlington, Iowa.
Prosser & Son, Thos., 15 Gold St., New York.
Smith & Son, Samuel, Paterson, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Boilers (Heating)

Baldwin, Wm. J., World Bldg., New York.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Exeter Machine Works, Exeter, N. H.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Huber Mfg. Co., Marion, Ohio.
Kewanee Boiler Co., Kewanee, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Lord & Burnham Co., Irvington, N. Y.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Murray Iron Works Co., Burlington, Iowa.
Phoenix Iron Works Co., Meadville, Pa.
Scaife & Sons, Wm. B., 221 First Ave., Pittsburg, Pa.
Smith Co., H. B., Westfield, Mass.

Boilers (Hot Water, Copper)

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Murray Iron Works, Burlington, Iowa.

Boilers (Tubular)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.
Cyclone Drill Co., Orrville, Ohio.
Fairbanks, Morse & Co., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Kewanee Boiler Co., Kewanee, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Leffel & Co., Jas., Springfield, Ohio.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Morris Co., I. P., Philadelphia, Pa.
Murray Iron Works Co., Burlington, Iowa.
Phoenix Iron Works Co., Meadville, Pa.
Smith & Son Co., Samuel, Paterson, N. J.
Tippett & Wood, Phillipsburg, N. J.
Troy Public Works Co., Utica, N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Vulcan Iron Works, Wilkesbarre, Pa.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
Wickes Bros., 90 West St., New York.

Mention "Engineering Record" when writing.

Boilers (Water-Tube)

Babcock & Wilcox Co., 85 Liberty St., New York.
Fairbanks, Morse & Co., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Murray Iron Works Co., Burlington, Iowa.
Parker Boiler Co., Pennsylvania Bldg., Philadelphia, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wickes Bros., 90 West St., New York.

Bolts

American Bridge Co., 30 Church St., New York.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Janney, Steinmetz & Co., Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Pittsburg Mfg. Co., Pittsburg, Pa.
Star Expansion Bolt Co., 147-149 Cedar St., New York.

Bolts (Expansion, Toggle, Etc.)

Brohard Co., Third St. & Lehigh Ave., Phila., Pa.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Milliken Bros., Milliken, N. Y.
Star Expansion Bolt Co., 147-149 Cedar St., New York.

Bolts (Machine)

Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Milliken Bros., Milliken, N. Y.
Star Expansion Bolt Co., 147-149 Cedar St., New York.

Bonds (Contractors')

Ritch, W. T., 1123 Broadway, New York.

Books (Engineering and Technical)

Ainsworth & Son, Wm., Denver, Col.
Architects & Engineers Supply Co., 1010 Grand Ave., Kansas City, Mo.
Audel & Co., Theo., 63 Fifth Ave., New York.
Baldwin, Wm. J., World Building, New York.
Journal of Assoc. of Engr. Soc., 31 Milk St., Boston.
Kolesch & Co., 138 Fulton St., New York.
McGraw-Hill Book Co., 239 W. 39th St., New York.
Technical Press Association, 51 Rue Aurore, Brussels, Belgium.
Wiley & Sons, John, 43 East 19th St., New York.

Boosters

General Electric Co., Schenectady, N. Y.
Sturtevant Co., B. F., Hyde Park, Mass.
Trojan Powder Co., 65 Pine St., New York.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Boots

Hayward & Co., S. F., 39 Park Place, New York.
Hundeby Mfg. Co., 2021 Washington Ave., North, Minneapolis, Minn.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blasting Supply Co., 11 Broadway, New York.
Rubberhide Co., 212 Essex St., Boston, Mass.

Mention "Engineering Record" when writing.

Boots (Elevator)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., New York & Chicago.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Vulcan Iron Works, Wilkesbarre, Pa.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Borings (Test)

Cyclone Drill Co., Orrville, Ohio.
Foundation Co., 115 Broadway, New York.
Keystone Driller Co., Beaver Falls, Pa.
Phillips & Worthington, 90 West St., New York.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Trojan Powder Co., 65 Pine St., New York.

Boxes (Dump)

Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Case Threshing Machine Co., J. I., Racine, Wis.
Columbia Wagon Co., Columbia, Pa.
Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
Eagle Wagon Works, Auburn, N. Y.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Sharon Boiler Works, Florida St., Sharon, Pa.
Studebaker Bros. Mfg. Co., South Bend, Ind.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Troy Wagon Works, South Walnut St., Troy, Ohio.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Boxes (Take-Up)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., New York & Chicago.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Braces (Extension)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Buffalo Steel Co., Tonawanda, N. Y.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Dunn Mfg. Co., Pittsburg, Pa.
Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.
Mitchell & Tappen, 122 Liberty St., New York.

Brackets and Cross-Arms

Berlin Construction Co., Berlin, Conn.
Milliken Bros., Milliken, N. Y.
Mitchell & Tappen, 122 Liberty St., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Wyckoff Pipe & Creosoting Co., 50 Church St., New York.

Brick and Tile

Davenport Brick & Tile Co., 226 W. Third St., Davenport, Iowa.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Harbison-Walker Refractories Co., Pittsburg, Pa.
McAvoy Vitrified Brick Co., 345 Arch St., Phila., Pa.

Mention "Engineering Record" when writing.

N. Y. State Sewer Pipe Co., Rochester, N. Y.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison St.,
Chicago, Ill.
Warner Co., Charles, Wilmington, Del.

Brick (Building and Sewer)

American Pipe & Construction Co., 112 N. Broad St.,
Philadelphia, Pa.
Davenport Brick & Tile Co., 226 W. Third St., Daven-
port, Iowa.
Metropolitan Paving Brick Co., Canton, Ohio.
National Fire Proofing Co., Pittsburg, Pa.
Warner Co., Charles, Wilmington, Del.

Brick (Paving)

American Asphaltum & Rubber Co., 600-614 Harvester
Bldg., Chicago, Ill.
Davenport Brick & Tile Co., 226 W. Third St., Daven-
port, Iowa.
McAvoy Vitriified Brick Co., 345 Arch St., Phila., Pa.
Metropolitan Paving Brick Co., Canton, Ohio.
National Paving Brick Assn., Indianapolis, Ind.
N. Y. State Sewer Pipe Co., Rochester, N. Y.
United Paving Co., Atlantic City, N. J.
Warner Co., Charles, Wilmington, Del.

Brick Machinery

American Blower Co., Detroit, Mich.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Buckeye Traction Ditcher Co., Findlay, Ohio.
Cleveland Crane & Engineering Co., Wyckliffe, Ohio.
Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
Drake Standard Machine Works, 1023 W. Jackson Boule-
vard, Chicago, Ill.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
International Sand-Lime Brick & Machinery Co., 90
West St., New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Pulsometer Steam Pump Co., 16 Battery Place, N. Y.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison
St., Chicago, Ill.
Ruggles-Coles Engineering Co., 50 Church St., N. Y.
Sturtevant Mill Co., Harrison Square, Boston, Mass.
Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Bridge Builders

American Bridge Co., 30 Church St., New York.
Ash, John Wm., Austell, Ga.
Baltimore Bridge Co., Baltimore, Md.
Belmont Iron Works, Philadelphia, Pa.
Berlin Construction Co., Berlin, Conn.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Burger Iron Co., Akron, Ohio.
Central States Bridge Co., Indianapolis, Ind.
Champion Bridge Co., Wilmington, Ohio.
Clinton Bridge & Iron Works, Clinton, Iowa.
Des Moines Bridge & Iron Co., Des Moines, Iowa.
Hennebique Construction Co., 1170 B'way, New York.
Jackson, Geo. W., 754-756 Jackson Blvd., Chicago, Ill.
King Bridge Co., Cleveland, Ohio.
Lackawanna Bridge Co., 50 Church St., New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Oregonia Bridge Co., Lebanon, Ohio.
Penn Bridge Co., Beaver Falls, Pa.

Mention "Engineering Record" when writing.

Pennsylvania Steel Co., Steelton, Pa.
 Raymond Concrete Pile Co., New York & Chicago.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B., 221 First Ave., Pittsburg, Pa.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Shoemaker & Co., Lewis F., Harrison Bldg., Phila., Pa.
 Snare & Triest Co., 143 Liberty St., New York.
 Terry & Tench, New York.
 Tippet & Wood, Phillipsburg, N. J.
 United Paving Co., Atlantic City, N. J.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Wardwell, Frederick S., Stamford, Conn.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
 Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Bridge Engineers

American Bridge Co., 30 Church St., New York.
 Baltimore Bridge Co., Baltimore, Md.
 Belmont Iron Works, Philadelphia, Pa.
 Berlin Construction Co., Berlin, Conn.
 Boston Bridge Works, 47 Winter St., Boston, Mass.
 Burger Iron Co., Akron, Ohio.
 Clinton Bridge & Iron Works, Clinton, Iowa.
 Concrete Steel Engineering Co., Park Row Bldg., New
 York.
 Hennebique Construction Co., 1170 B'way, New York.
 Lackawanna Bridge Co., 50 Church St., New York.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha
 Ave., Minneapolis, Minn.
 Oregonia Bridge Co., Lebanon, Ohio.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., Steelton, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Terry & Tench, New York.
 Virginia Bridge & Iron Co., Roanoke, Va.
 White & Co., J. G., 43-49 Exchange Pl., New York.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
 Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Bridge Operating Machinery

Allis-Chalmers Co., Milwaukee, Wis.
 Baltimore Bridge Co., Baltimore, Md.
 Fairbanks, Morse & Co., Chicago, Ill.
 Lake Erie Engrg. Works, Buffalo, N. Y.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., Steelton, Pa.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Vulcan Iron Works, Chicago, Ill.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
 Milwaukee, Wis.

Bridge, Pier and Building Foundations (See Contractors', General), (also Founda- tions)

Bridge Railings

American Bridge Co., 30 Church St., New York.
 Anchor Post Iron Works, 15 Church St., New York.
 Belmont Iron Works, Philadelphia, Pa.

Mention "Engineering Record" when writing.

Berlin Construction Co., Berlin, Conn.
 Boston Bridge Works, 47 Winter St., Boston, Mass.
 Clinton Bridge & Iron Works, Clinton, Ia.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Milliken Bros., Milliken, N. Y.
 Pennsylvania Steel Co., Steelton, Pa.
 Riverside Bridge Co., Martins Ferry, Ohio.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Phila., Pa.

Bridges (Bascule)

American Bridge Co., 30 Church St., New York.
 Boston Bridge Works, 47 Winter St., Boston, Mass.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., Steelton, Pa.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Snare & Triest Co., 143 Liberty St., N. Y.
 Virginia Bridge Iron Co., Roanoke, Va.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
 Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Bridges (Concrete)

Aberthaw Construction Co., Boston, Mass.
 American Concrete Steel Co., Newark, N. J.
 Ash, John Wm., Austell, Ga.
 Blome Co., R. S., Unity Bldg., Chicago, Ill.
 Carey Construction Co., 211 Lennox Bldg., Cleveland,
 Ohio.
 Clinton Bridge & Iron Works, Clinton, Iowa.
 Concrete Steel Engrg. Co., Park Row Bldg., New York.
 Corrugated Bar Co., 1410 Bank of Commerce Bldg., St.
 Louis, Mo.
 Cuzzo, Donato, Park Row Bldg., New York.
 Ferro-Concrete Construction Co., Richmond & Harriet
 Sts., Cincinnati, Ohio.
 Foundation Co., 115 Broadway, New York.
 Hennebeque Construction Co., 1170 B'way, New York.
 Raymond Concrete Pile Co., New York & Chicago.
 Snare & Triest Co., 143 Liberty St., New York.
 Trussed Concrete Steel Co., Detroit, Mich.
 United Paving Co., Atlantic City, N. J.

Bridges (Suspension)

American Bridge Co., 30 Church St., New York.
 Boston Bridge Works, 47 Winter St., Boston, Mass.
 Leschen & Sons Rope Co., A., St. Louis, Mo.
 Newell, A. T., 629 Brown-Marx Bldg. Birmingham, Ala.
 Penn. Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co. Steelton, Pa.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Roeblings Sons Co., Jno. A., Trenton, N. J.

Bridges, Roofs, Etc. (Steel)

American Bridge Co., 30 Church St., New York.
 Asbestos Protected Metal Co., Canton, Mass.
 Baltimore Bridge Co., Baltimore, Md.
 Belmont Iron Works, Philadelphia, Pa.
 Berlin Construction Co., Berlin, Conn.
 Boston Bridge Works, 47 Winter St., Boston, Mass.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Brown-Ketcham Iron Works, Indianapolis, Ind.

Mention "Engineering Record" when writing.

Burger Iron Co., Akron, Ohio.
 Central States Bridge Co., Indianapolis, Ind.
 Champion Bridge Co., Wilmington, Ohio.
 Clinton Bridge & Iron Works, Clinton, Ia.
 Kenwood Bridge Co., 1416 First Nat'l Bank Bldg., Chicago.
 King Bridge Co., Cleveland, Ohio.
 Kratzer & Co., W. N., Pittsburg, Pa.
 Lackawanna Bridge Co., 50 Church St., New York.
 Lackawanna Steel Co., 2 Rector St., New York.
 Milliken Bros., Milliken, N. Y.
 Milwaukee Bridge Co., Milwaukee, Wis.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave.,
 Minneapolis, Minn.
 Mitchell & Tappen, 122 Liberty St., New York.
 Oregonia Bridge Co., Lebanon, Ohio.
 Penn Bridge Co., Beaver Falls, Pa.
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Scaife & Sons Co., Wm. B., 221 First Ave., Pittsburg, Pa.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia.
 Snare & Triest Co., 143 Liberty St., New York.
 Steel Roof Truss Co., 618 New Bank of Commerce Bldg.,
 St. Louis, Mo.
 Terry & Tench, New York.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
 Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Bronze Founders

Brown-Ketcham Iron Works, Indianapolis, Ind.
 Schreiber & Sons Co., L., Cincinnati, Ohio.

Buckets

Acme Equipment & Engineering Co., Cleveland, Ohio.
 Atkinson Co., Wm. H., Hudson River at 7th St., Hoboken,
 N. J.
 Barron & Cole Co., 127 Franklin St., New York.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Channon Co., H., Chicago, Ill.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Dobbie Foundry & Machinery Co., Niagara Falls, N. Y.
 Hayward Co., 50 Church St., New York.
 Insley Mfg. Co., Indianapolis, Ind.
 Inter-State Equipment & Engineering Co., 1775 Old Colony
 Bldg., Chicago, Ill.
 Maine Electric Co., Portland, Me.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mitchell & Tappen, 122 Liberty St., New York.
 Obermayer Co., S., Cincinnati, Ohio.
 Stuebner Iron Works, G. L., foot of 12th St., Long Island
 City, N. Y.
 Union Iron Works, Hoboken, N. J.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, O.

Buckets (Clam Shell)

Acme Equipment & Engineering Co., Cleveland, Ohio.
 Barron & Cole Co., 127 Franklin St., New York.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Browning Mfg. Co., Cleveland, Ohio.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.

Mention "Engineering Record" when writing.

Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Haiss Mfg. Co., Geo., New York.
 Hayward Co., 50 Church St., New York.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Maine Electric Co., Portland, Me.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 New York Cableway & Engrg. Co., 2 Rector St., N. Y.
 Parker, F. J., Pennsylvania Bldg., Phila., Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Union Iron Works, Hoboken, N. J.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.
 Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, Ohio.

Buckets (Concrete)

Acme Equipment & Engrg. Co., Cleveland, Ohio.
 American Hoist & Derrick Co., St. Paul, Minn.
 Barron & Cole Co., 127 Franklin St., N. Y.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 Hains Concrete Machinery Co., Washington, D. C.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton N. Y.
 Insley Mfg. Co., Indianapolis, Ind.
 Inter-State Equipment & Engrg. Co., 1775 Old Colony Bldg., Chicago, Ill.
 Maine Electric Co., Portland, Me.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mitchell & Tappen, 122 Liberty St., New York.
 Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Stuebner Iron Works, G. L., ft. of 12th St., L. I. City, N. Y.
 Union Iron Works, Hoboken, N. J.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Buckets (Dredging and Excavating)

Acme Equipment & Machinery Co., Cleveland, Ohio.
 Atkinson Co., Wm., Hudson River, at 7th St., Hoboken, N. J.
 Barron & Cole Co., 127 Franklin St., New York.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Bucyrus Co., So, Milwaukee, Wis.
 Channon Co., H., Chicago, Ill.
 Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.

Mention "Engineering Record" when writing.

Hayward Co., 50 Church St., New York.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Lidgerwood-Crawford Co., Fisher Bldg., Chicago, Ill.
 Maine Electric Co., Portland, Me.
 Marion Steam Shovel Co., Marion, Ohio.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mitchell & Tappen, 122 Liberty St., New York.
 New York Cableway & Engineering Co., 2 Rector St., New York.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Vulcan Iron Works, Chicago, Ill.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wickes Bros., 90 West St., New York.
 Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, Ohio.

Buckets (Dumping)

Acme Equipment & Engineering Co., Cleveland, Ohio.
 American Hoist & Derrick Co., St. Paul, Minn.
 Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
 Barron & Cole Co., 127 Franklin St., New York.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
 Cockburn, Barrow & Machine Co., 30 Church St., N. Y.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Hunt Co., C. W., West New Brighton, N. Y.
 Insley Mfg. Co., Indianapolis, Ind.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Manitowoc Boiler Works Co., Manitowoc, Wis.
 Marine Metal & Supply Co., 167 South St., New York.
 McCoy Co., Henry, Jr., 65-67 Dey St., New York.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mitchell & Tappen, 122 Liberty St., New York.
 Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
 Ohio Ceramic Engrg. Co., Cleveland, Ohio.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
 Union Iron Works, Hoboken, N. J.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Buckets (Elevator)

Allis-Chalmers Co., Milwaukee, Wis.
 American Hoist & Derrick Co. St. Paul, Minn.
 Atkinson Co., Wm. H., Hudson River at 7th St., Hoboken, N. J.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Chain Belt Co., Milwaukee, Wis.
 Conveying Weigher Co., 92 West St., New York.
 Fairbanks Co., New York & Chicago.
 Hunt Co., C. W., W. New Brighton, N. Y.
 Insley Mfg. Co., Indianapolis, Ind.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Marion Steam Shovel Co., Marion, Ohio.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis; Minn.
 Mitchell & Tappen, 122 Liberty St., New York.

Mention "Engineering Record" when writing.

Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Buckets (Excavating)

Atkinson Co., Wm. H., Hudson River at 7th St., Hoboken, N. J.
Barron & Cole Co., 127 Franklin St., New York.
Bond Co., Harold L., 383 Atlantic Ave., Boston, Mass.
Bucyrus Co., S. Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Hadsell Engineering Co., Scranton, Pa.
Hayward Co., 50 Church St., New York.
Inter-State Equip. & Eng. Co., 1775 Old Colony Bldg., Chicago, Ill.
Lidgerwood-Crawford Co., 1917 Fisher Bldg., Chicago, Ill.
Marine Metal & Supply Co., 167 South St., New York.
McCoy Co., Henry J., 65-67 Dey St., New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Mitchell & Tappen, 122 Liberty St., New York.
Monighan Machine Co., 2016-2030 Carroll Ave., Chicago.
New York Cableway & Engineering Co., 2 Rector St., New York.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Williams Co., G., 1513 Rockefeller Bldg., Cleveland, O.

Buckets (Orange Peel)

Barron & Cole Co., 127 Franklin St., New York.
Browning Mfg. Co., Cleveland, Ohio.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hayward Co., 50 Church St., New York.
Hunt Co., C. W., W. New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Whitehead & Kales Iron Works, Detroit, Mich.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Buckets (Sewer)

Barron & Cole Co., 127 Franklin St., New York.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Hayward Co., 50 Church St., New York.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Mitchell & Tappen, 122 Liberty St., New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
Union Iron Works, Hoboken, N. J.

Mention "Engineering Record" when writing.

Building Blocks

Ash, John Wm., Austell, Ga.
Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
National Fire Proofing Co., Pittsburg, Pa.
Rockport Granite Co., Rockport, Mass.

Building-Block Machinery

American Cement Machinery Co., St. Louis, Mo.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Fisher Hydraulic Stone & Machinery Co., Baltimore, Md.
International Sand-Lime Brick & Machinery Co., 90 West St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Building Material (See Also Cement, Building Blocks and Bridges and Roofs)

Berger Mfg. Co., Canton, Ohio.
Bird & Son, F. W., East Walpole, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Chicago Bridge & Iron Works, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Engineering Co., Park Row Bldg., New York.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Fisher Hydraulic Stone & Machinery Co., Baltimore, Md.
Helderberg Cement Co., 78 State St., Albany, N. Y.
Lawrence Cement Co., 1 Broadway, New York.
Milliken Bros., Milliken, N. Y.
National Fire Proofing Co., Pittsburg, Pa.
National Wire Cloth Co., Sandusky, Ohio.
Oregonia Bridge Co., Lebanon, Ohio.
Rockport Granite Co., Rockport, Mass.
Warner Co., Charles, Wilmington, Del.
Whitehead & Kales Iron Works, Detroit, Mich.

Building Papers

Bird & Son, F. W., East Walpole, Mass.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Eastern Asphalt Supply Co. 115 B'way New York.
Farwell, Ozmun, Kirk & Co. St. Paul, Minn.
Standard Paint Co., 100 William St., New York.
Warner Co., Charles, Wilmington, Del.

Bulldozers

Fairbanks Co., New York & Chicago.

Cable Grips

Keays Cable Grip Co., 97 Liberty St., New York.

Cables (Drilling)

American Mfg. Co., 65 Wall St., N. Y.
Broderick & Bascom Rope Co., St. Louis, Mo.
Builders Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Cyclone Drill Co., Orrville, Ohio.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Roebbling's Sons Co., Jno. A., Trenton, N. J.
Trenton Iron Co., Trenton, N. J.

Cables (Manila)

Allis-Chalmers Co., Milwaukee, Wis.
American Mfg. Co., 65 Wall St., N. Y.
Broderick & Bascom Rope Co., St. Louis, Mo.

Mention "Engineering Record" when writing.

Cyclone Drill Co., Orrville, Ohio.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hunt Co., C. W., West New Brighton N. Y.
Leschen & Sons Rope Co. A., St. Louis, Mo.

Cableways

Bond Co., Harold, L., 383-391 Atlantic Ave., Boston.
Broderick & Bascom Rope Co., St. Louis, Mo.
Carson-Trench Machine Co., 16 Dorrance St., Boston.
Flory Mfg. Co., S., Bangor, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Keays Cable Grip Co., 97 Liberty St., New York.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Longenecker & Co. Chas. W., 150 Nassau St., N. Y.
Maine Electric Co., Portland, Me.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
New York Cableway & Engineering Co., 2 Rector St., New York.
Roebblings Sons Co., Jno. A., Trenton, N. J.
Trenton Iron Co., Trenton, N. J.
United States Equipment Co. 1201 Fisher Bldg., Chicago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Caisson Cylinders

Chicago Bridge & Iron Works, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Iowa.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Foundation Co., 115 Broadway, New York.
Mitchell & Tappen, 122 Liberty St., New York.
Petroleum Iron Works Co., Sharon, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Worden-Allen Co., 115 Adams St., Chicago, Ill.

Caisson Cylinders (Wooden)

Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
Clinton Bridge & Iron Works, Clinton, Iowa.
Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
Foundation Co., 115 Broadway, New York.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Caissons

Cockburn, Barrow & Machine Co., 30 Church St., N. Y.
East Jersey Pipe Co., 50 Church St., New York.
Foundation Co. 115 Broadway, New York.
Lackawanna Steel Co., 2 Rector St., New York.
Murray Iron Works Co., Burlington, Iowa.
O'Rourke Engrg. & Construction Co., New York.
Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co. Wm. B., Pittsburg, Pa.
United Paving Co., Atlantic City, N. J.

Calculating Machines

Morschhauser, W. A., 3 Madison Ave., New York.

Calking Tools

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Ingersoll-Rand Co., 11 Broadway, New York.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
Waterworks Equipment Co., 50 Church St., New York.

Mention "Engineering Record" when writing.

Capstans (Hand, Steam and Electric)

Maine Electric Co., Portland, Me.
Williamson Bros. Co., Aramingo Ave. & Cumberland St.,
Philadelphia, Pa.

Car Couplers, Fenders, Parts, Fittings and Car-Wheels

Fairbanks, Morse & Co., Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Car Movers and Pushers

Broderick & Bascom Rope Co., St. Louis, Mo.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave.,
Minneapolis, Minn.
Obermayer Co., S., Cincinnati, Ohio.
Watson-Stillman Co., Co., 58 Church St., New York.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 N. 4th St., St.
Louis, Mo.

Car Replacers

Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Watson-Stillman Co., 58 Church St., New York.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 N. 4th St. St. Louis.

Cars

Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Hunt Co., C. W., W. New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old Colony
Bldg., Chicago, Ill.
Keays Cable Grip Co., 97 Liberty St., New York.
McCoy Co., H. J., 65-67 Dey St., New York.
Ohio Ceramic Engineering Co. Cleveland, Ohio.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Peteler Car Co., Minneapolis, Minn.
Russel Wheel & Foundry Co., Detroit, Mich.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Stuebner Iron Works, G. L., Foot of 12th St., Long
Island City, N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago,
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 N. Fourth St., St.
Louis, Mo.

Cars (Ballast)

Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Keays Cable Grip Co., 97 Liberty St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
Power & Mining Machinery Co., Milwaukee, Wis.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars (Coal and Ash)

Cockburn Barrow & Machine Co., 30 Church St., New
York.
Hunt Co., C. W., West New Brighton, N. Y.

Mention "Engineering Record" when writing.

Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Keays Cable Grip Co., 97 Liberty St., New York.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
 Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Union Iron Works, Hoboken, N. J.
 Whitehead & Kales Iron Works, Detroit, Mich.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars (Concrete)

Acme Equipment & Engineering Co., Cleveland, Ohio.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Cockburn Barrow & Machine Co., 30 Church St., New York.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Keays Cable Grip Co., 97 Liberty St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy & Co., Henry J., 65-67 Dey St., New York.
 Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Orenstein-Arthur Koppel Co., Pittsburg, Pa.
 Smith Co., T. L., Old Colony Bldg., Chicago, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., Long Island City, N. Y.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Union Iron Works, Hoboken, N. J.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars, Derrick (Self-Propelling)

American Hoist & Derrick Co., St. Paul, Minn.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Keays Cable Grip Co., 97 Liberty St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Cars (Dumping)

Acme Equipment & Engineering Co., Cleveland, Ohio.
 Allis-Chalmers Co., Milwaukee, Wis.
 Austin-Western Co., Ltd., Chicago, Ill.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Buffalo Pitts Co., Buffalo, N. Y.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Continental Car & Equipment Co., 17 Battery Pl., N. Y.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Hunt & Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Keays Cable Grip Co., 97 Liberty St., New York.
 Marine Metal & Supply Co., 167 South St., New York.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Newell, A. T., 629 Brown-Marx Bldg., Birmingham, Ala.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Orenstein-Arthur Koppel Co., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Peteler Car Co., Minneapolis, Minn.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., Long
 Island City, N. Y.
 Union Iron Works, Hoboken, New Jersey.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.
 Zelnicker Supply Co., Walter A., 406 No. 4th St., St.
 Louis, Mo.

Cars (Elevator)

Builders' Material Supply, 301-335 Scarritt Bldg., Kan-
 sas City, Mo.
 Inter-State Equipment & Engineering Co., 1775 Old Col-
 ony Bldg., Chicago, Ill.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Schreiber & Sons Co., Cincinnati, Ohio.

Cars (Flat)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Hobbs & Ives Equipment Machinery Co., Norfolk, Va.
 Hunt & Co., C. W., West New Brighton, N. Y.
 Keays Cable Grip Co., 97 Liberty St., New York.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Parker, F. J., Pennsylvania Bldg., Phila., Pa.
 Peteler Car Co., Minneapolis, Minn.
 Russel Wheel & Foundry Co., Detroit, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chi-
 cago, Ill.
 Wiener Co., Ernst, 470 Hudson Terminal Bldg., New
 York.

Cars (Gasoline Motor)

Fairbanks, Morse & Co., Chicago, Ill.
 General Electric Co., Schenectady, New York.
 Studebaker Bros. Mfg. Co., So. Bend., Ind.
 Wiener Co., Ernst, 470 Hudson Terminal Bldg., New
 York.

Cars (Hand and Push)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Fairbanks, Morse & Co., Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Standard Scale & Supply Co., 50-52 So. Canal St., Chi-
 cago, Ill.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., L. I. City.
 N. Y.
 Treadwell Construction Co., Midland, Pa.
 Wiener Co., Ernst, 470 Hudson Terminal, New New.
 Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
 St. Louis, Mo.

Cars (Industrial)

Acme Equipment & Engineering Co., Cleveland, Ohio.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Cockburn Barrow & Machine Co., 30 Church St., New
 York.

Mention "Engineering Record" when writing.

Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Haiss Mfg. Co., Geo., New York.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Keays Cable Grip Co., 97 Liberty St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Orenstein-Arthur Koppel Co., Pittsburg.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Sharon Boiler Works, Florida St., Sharon, Pa.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Standard Scale & Supply Co., 50-52 So. Canal St., Chicago, Ill.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., L. I. City, N. Y.
 Treadwell Construction Co, Midland, Pa.
 Union Iron Works, Hoboken, N. J.
 Watson-Stillman Co., 58 Church St., New York.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars (Inspection)

Fairbanks, Morse & Co., Chicago, Ill.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars (Mining)

Allis-Chalmers Co., Milwaukee, Wis.
 Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.
 Cockburn Barrow & Machine Co., 30 Church St., New York
 Fairbanks, Morse & Co., Chicago, Ill.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Keays Cable Grip Co., 97 Liberty St., New York.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Ohio Ceramic Engineering Co., Cleveland, Ohio.
 Orenstein-Arthur Koppel Co., Pittsburg.
 Pacific Tank & Pipe Co., 318 Market St., San Francisco.
 Peteler Car Co., Minneapolis, Minn.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., L. I. City, N. Y.
 Union Iron Works, Hoboken, N. J.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Cars (Tank)

Baltimore Cooperage Co., 37 So. Howard St., Balt., Md.
 Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.
 Chicago Bridge & Iron Works, Chicago, Ill.
 Graver Tank Works, Wm., East Chicago, Ind.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Scaife & Sons Co., Wm. B., Pittsburg, Pa.
 Sharon Boiler Works, Florida St., Sharon, Pa.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.
 Zelnicker Supply Co., Walter A., 406 N. Fourth St., St. Louis, Mo.

Cars (Velocipede)

Fairbanks, Morse & Co., Chicago, Ill.
 Wiener Co., Ernst, 470 Hudson Terminal, New York.

Mention "Engineering Record" when writing.

Cars, Second-Hand (See Second-Hand Machinery and Supplies)

Carts and Wagons, Ash and Dump (See Wagons, Ash, also Wagons, Dumping)

Carts (Concrete)

Acme Equipment & Engineering Co., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Builders Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Goit Mfg. Co., Inc., Oklahoma City, Oklahoma.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Ransome Concrete Machinery Co., Dunellen, N. J.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Standard Scale & Supply Co., 50-52 So. Canal St., Chicago, Ill.
Sterling Wheelbarrow Co., West Allis, Wis.
Studebaker Bros Mfg. Co., So. Bend, Ind.
Stuebner Iron Works, G. L., Foot of 12th St., L. I. City, N. Y.
Toledo Wheelbarrow Co., Toledo, Ohio.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Castings (Iron)

American Bridge Co., 30 Church St., N. Y.
American District Steam Co., Lockport, N. Y.
Belmont Iron Works, Eddystone, Pa.
Brown-Ketcham Iron Works, Indianapolis, Ind.
Builders' Iron Foundry, Providence, R. I.
Burr, M. E., Champaign, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Dake Engine Co., Grand Haven, Mich.
Donaldson Iron Co., Emaus, Lehigh Co., Pa.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
Dunning, W. D., Syracuse, N. Y.
Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md.
Flory Mfg. Co., S., Bangor, Pa.
Fox & Co., John, 253 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Leader Foundry & Machine Co., Quincy, Ill.
Massillon Iron & Steel Co., The Rookery, Chicago, Ill.
McWane Pipe Works, 220 Broadway, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Mitchell & Tappen, 122 Liberty St., New York.
Morris Co., I. P., Philadelphia, Pa.
Peteler Car Co., Minneapolis, Minn.
Phoenix Iron Works Co., Meadville, Pa.
Pittsburg Mfg. Co., Pittsburg, Pa.
Russel Wheel & Foundry Co., Detroit, Mich.
Schrieber & Sons Co., L., Cincinnati, Ohio.
Sessions Foundry Co., Bristol, Conn.
Standard Cast Iron Pipe & Foundry Co., Bristol, Pa.
Union Iron Works, Hoboken, N. J.
U. S. Cast Iron Pipe & Foundry Co., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Whitehead-Kales Iron Works, Detroit, Mich.
Wiener Machinery Co., 30 Church St., N. Y.
Williamson Bros. Co., Aramingo & Cumberland Aves., Philadelphia, Pa.
Wood & Co., R. D., 400 Chestnut St., Phila., Pa.

Mention "Engineering Record" when writing.

Castings (Malleable Iron)

American Cast Iron Pipe Co., Birmingham, Ala.
Broderick & Bascom Rope Co., St. Louis, Mo.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Chisholm & Moore Mfg. Co., Cleveland, Ohio.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Janney, Steinmetz & Co., Philadelphia, Pa.
Massillon Iron & Steel Co., The Rookery, Chicago, Ill.
U. S. Cast Iron Pipe & Foundry Co., New York.

Castings (Manganese Steel)

Manganese Steel Rail Co., 30 Church St., New York.
Mitchell & Tappen, 122 Liberty St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Taylor Iron & Steel Co., High Bridge, N. J.

Castings (Steel)

American Bridge Co., 30 Church St., N. Y.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md.
Lake Erie Engineering Works, Buffalo, N. Y.
Mitchell & Tappen, 122 Liberty St., New York.
Morris Co., I. P., Philadelphia, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Prosser & Sons, Thos., 15 Gold St., New York.
Taylor Iron & Steel Co., High Bridge, N. J.

Ceiling and Siding (Iron and Steel)

Asbestos Protected Metal Co., Canton, Mass.
Berger Mfg. Co., Canton, Ohio.
Garry Iron & Steel Co., Cleveland, Ohio.
Milliken Bros., Milliken, N. Y.

Cement

Allentown Portland Cement Co., Allentown, Pa.
Alpha Portland Cement Co., Easton, Pa.
Alsen American Portland Cement Works, 45 Broadway, New York.
American Cement Co., 603-10 Penna. Bldg., Phila., Pa.
Atlas Portland Cement Co., 30 Broad St., New York.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Chicago Portland Cement Co., Chicago, Ill.
Consolidated Rosendale Cement Co., 50 Church St., New York.
Coplay Cement Mfg. Co., Penn Bldg., Philadelphia, Pa.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Edison Portland Cement Co., St. James Bldg., New York.
French & Co., Samuel H., Philadelphia, Pa.
Glens Falls Portland Cement Co., Glens Falls, N. Y.
Hartranft Cement Co., Wm. G., Real Estate Trust Bldg., Philadelphia, Pa.
Helderberg Cement Co., 78 State St., Albany, N. Y.
Hydrolithic Cement Co., 138 Jackson Blvd., Chicago, Ill.
Ironton Portland Cement Co., Ironton, Ohio.
Lawrence Cement Co., 1 Broadway, New York.
Lehigh Portland Cement Co., Allentown, Pa.
Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
New Castle Portland Cement Co., New Castle, Pa.
Peninsula Portland Cement Co., Jackson, Mich.
Universal Portland Cement Co., 115 Adams St., Chicago.
Vulcanite Portland Cement Co., 200 Fifth Ave., New York.
Warner Co., Charles, Wilmington, Del.

Cement (White)

Harrison Waterproofing Materials Co., 30 Church St., New York.
Warner Co., Charles, Wilmington, Del.

Mention "Engineering Record" when writing.

Cement Block and Brick Machines (See Building Block Machines)

Cement Making Machinery (See Ball Mills; Circuit Breakers; Conveying Machinery; Crushing Rolls; Dryers, Cement; Grinding Machinery; Kilns, Cement; Pulverizers; Screens; Separators; Tube Mills)

Cement Mixers (See Mixers, Cement)

Cement Testing Machines (See Testing Machines)

American Cement Machinery Co., St. Louis, Mo.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.

Cement Waterproofing (See Waterproofing Cement)

Cement Weighing Machines

Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., New York & Chicago.
Standard Scale & Supply Co., 50-52 S. Canal St., Chicago, Ill.

Centers

Adjustable Steel Centering Co., Fond Du Lac, Wis.
American Cement Machinery Co., St. Louis, Mo.
Baltimore Bridge Co., Baltimore, Md.
Blaw Collapsible Steel Centering Co., 710 Westinghouse Bldg., Pittsburg, Pa.
Ransome Concrete Machinery Co., Dunellen, N. J.

Chains (Common)

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Seneca Chain Co., Kent, Ohio.
Taylor Iron & Steel Co., High Bridge, N. J.
Terry & Tench Co., New York.

Chains (Sprocket)

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Conveying Weigher Co., 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Morse Chain Co., Ithaca, N. Y.
Seneca Chain Co., Kent, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor Iron & Steel Co., High Bridge, N. J.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Chairs (Spacing)

National Wire Cloth Co., Sandusky, Ohio.

Channelers

Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Mention "Engineering Record" when writing.

Channels (See Structural Steel)

Chemical Engines

Hayward & Co., S. F., 39 Park Place, New York.

Chemists

Dow & Smith, 24 East 21 st St., New York.

Fuller Engineering Co., Allentown, Pa.

Lehigh Valley Testing Laboratory, Allentown, Pa.

Toch Bros., 320 Fifth Ave., N. Y.

Chimneys (Concrete)

Alphons-Custodis Chimney Construction Co., New York.

Cockburn Barrow & Machine Co., 30 Church St., N. Y.

Hughes, Steeple Jack, 21 Walcott St., Brooklyn, N. Y.

McCoy Co., Henry J., 65-67 Dey St., New York.

National Wire Cloth Co., Sandusky, Ohio.

Stuebner Iron Works, G. L., Foot of 12th St., L. I. City, N. Y.

Trussed Concrete Steel Co., Detroit, Mich.

Weber Chimney Co., 209 State St., Chicago, Ill.

Chimneys (Radial Brick)

Alphons-Custodis Chimney Construction Co., New York.

Heinicke, H. R., 147 Fourth Ave., New York.

Hughes, Steeple Jack, 21 Walcott St., Brooklyn, N. Y.

Kellogg Co., M. W., 50 Church St., New York.

Chimneys (Steel)

Baldwin, Wm. J., World Bldg., New York.

Chicago Bridge & Iron Works, Chicago, Ill.

Cockburn Barrow & Machine Co., 30 Church St., N. Y.

Graver Tank Works, Wm., East Chicago, Ind.

Hughes, Steeple Jack, 21 Walcott St., Brooklyn, N. Y.

Kellogg Co. M. W., 50 Church St., New York.

Lake Erie Engineering Works, Buffalo, N. Y.

McCoy Co., Henry J., 65-67 Dey St., New York.

Milliken Bros., Milliken, N. Y.

Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.

Mitchell & Tappen, 122 Liberty St., New York.

Murray Iron Works, Burlington, Iowa.

Petroleum Iron Works Co., Sharon, Pa.

Phoenix Iron Works Co., Meadville, Pa.

Riter-Conley Mfg. Co., Pittsburg, Pa.

Schreiber & Sons Co., L., Cincinnati, Ohio.

Sharon Boiler Works, Florida St., Sharon, Pa.

Smith & Son Co., Samuel, Paterson, N. J.

Stuebner Iron Works, G. L., Foot of 12th St., L. I. City.

Terry & Tench, New York.

Tippett & Wood, Phillipsburg, N. J.

Treadwell Construction Co., Midland, Pa.

Union Iron Works, Hoboken, N. J.

Virginia Bridge & Iron Co., Roanoke, Va.

Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Whitehead & Kales Iron Works, Detroit, Mich.

Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg., Milwaukee, Wis.

Chimney Tops (Vitrified Clay)

Eastern Clay Goods Co., 79 Milk St., Boston, Mass.

Hughes, Steeple Jack, 21 Walcott St., Brooklyn, N. Y.

Kellogg Co. M. W., 50 Church St., New York.

N. Y. State Sewer Pipe Co. Rochester, N. Y.

Circuit Breakers

Cutter Co., Philadelphia, Pa.

Mention "Engineering Record" when writing.

Clamps (Bridge)

Broderick & Bascom Rope Co., St. Louis, Mo.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Patterson Co., W. W., Pittsburg.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.

Clamps and Clips (Wire-Rope)

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 333-391 Atlantic Ave., Boston, Mass.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Patterson Co. W. W., Pittsburg, Pa.
Roebbling's Sons Co., Jno. A., Trenton, N. J.
Star Expansion Bolt Co., 147-149 Cedar St., New York.
Terry & Tench, New York.

Cleaners (Flue)

Fairbanks Co., New York & Chicago.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Cleaners, Water Main (See Water Main Cleaners)

Clevis Nuts

Maine Electric Co., The, Portland, Me.
American Bridge Co., 30 Church St., New York.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Janney, Steinmetz & Co., Philadelphia, Pa.

Clutches (Friction)

Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Allis-Chalmers Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Cyclone Drill Co., Orrville, Ohio.
Maine Electric Co., Portland, Me.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Platt Iron Works Co., Dayton, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Coal and Ore-Handling Machinery

Allis-Chalmers Co., Milwaukee, Wis.
Atlas Dryer Co., Cleveland, Ohio.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co. H., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Conveying Weigher Co., 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Leschen & Sons Rope Co., A., St. Louis Mo.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
New York Cableway & Engineering Co., 2 Rector St., New York.

Mention "Engineering Record" when writing.

Raymond Bros., Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
 Robins Conveying Belt Co., 13 Park Row, N. Y.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Stuebner Iron Works, G. L., foot of 12th St., L. I. City, N. Y.
 Terry & Tench, New York.
 Union Iron Works, Hoboken, N. J.
 Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.
 Whitehead-Kales Iron Works, Detroit, Mich.
 Williams Patent Crusher Pulverizer Co., Chicago, Ill.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbot Bldg., Milwaukee, Wis.

Coal Tipples

American Bridge Co., 30 Church St., New York.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Burger Iron Co., Akron, Ohio.
 Fairbanks, Morse & Co., Chicago, Ill.
 Kratzer & Co., W. N., Pittsburg, Pa.
 Oregonia Bridge Co., Lebanon, Ohio.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Wisconsin Bridge & Iron Co., Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Cofferdams

Carnegie Steel Co., Pittsburg, Pa.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Foundation Co., 115 Broadway, New York.
 Heyworth, James O., Harvester Bldg., Chicago, Ill.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Lackawanna Steel Co., 2 Rector St., New York.
 Milliken Bros., Milliken, N. Y.
 United Paving Co., Atlantic City, N. J.
 Wardwell, Frederick S., Stamford, Conn.

Colors, Mortar

Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
 Clinton Metallic Paint Co., Clinton N. Y.
 Toch Bros., 320 Fifth Ave., New York.
 Warner Co., Charles, Wilmington, Del.

Compressed - Air Tools (See Pneumatic Tools)

Concrete Barrows

Acme Equipment & Engineering Co., Cleveland, Ohio.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Cockburn Barrow & Machine Co., 30 Church St., New York.
 Fairbanks Co., New York & Chicago.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Inter-State Equipment & Engineering Co. 1775 Old Colony Bldg., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Stuebner Iron Works, G. L., Foot of 12th St., L. I. City, N. Y.
 Toledo Wheelbarrow Co., Toledo, Ohio.
 Union Iron Works, Hoboken, N. J.

Mention "Engineering Record" when writing.

Concrete Block Machines (See Building Block Machines)

Concrete Construction

Aberthaw Construction Co., Boston, Mass.
Adjustable Steel Centering Co., Fond Du Lac, Wis.
American Concrete Steel Co., Newark, N. J.
Ash, John Wm., Austell, Ga.
Baltimore Bridge Co., Baltimore, Md.
Blaw-Collapsible Steel Centering Co., 710 Westinghouse Bldg., Pittsburgh, Pa.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Carey Construction Co., 211 Lenox Bldg., Cleveland, O.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Co., 29 Broadway, New York.
Concrete Steel Engrg. Co., Park Row Bldg., New York.
Cuozzo, Donato, Park Row Bldg., New York.
Ferro-Concrete Construction Co., Richmond & Harriet Sts., Cincinnati, O.
Foundation Co., 115 Broadway, New York.
Hennebique Construction Co., 1170 Broadway, New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Interlocking Steel Co., Cleveland, O.
Jackson, Geo. W., 754-756 Jackson Blvd., Chicago, Ill.
Kidde, Walter, 140 Cedar St., New York.
MacArthur Concrete Pile Co., 11 Pine St., New York.
National Fire Proofing Co., Pittsburgh, Pa.
Oregonia Bridge Co., Lebanon, O.
Ransome, Ernest L., 11 Broadway, New York.
Raymond Concrete Pile Co., New York & Chicago.
Reinforced Concrete Pipe Co., Jackson, Mich.
Roebbling Construction Co., 949 Broadway, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Tucker & Vinton, 103 Park Ave., New York.
Turner Construction Co., New York.
White & Co., J. G., 43-49 Exchange Pl., New York.
United Paving Co., Atlantic City, N. J.
Waterproofing Co., New York.
Weber Chimney Co., 209 State St., Chicago, Ill.

Concrete (Reinforced)

Aberthaw Construction Co., Boston, Mass.
American Concrete Steel Co., Newark, N. J.
American Luxfer Prism Co., 42 Madison St., Chicago, Ill.
Baltimore Bridge Co., Baltimore, Md.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Calumet Steel Co., Chicago, Ill.
Carnegie Steel Co., Pittsburgh, Pa.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Co., 29 Broadway, New York.
Concrete Steel Engrg. Co., Park Row Bldg., New York.
Cuozzo, Donato, Park Row Bldg., New York.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Ferro-Concrete Construction Co., Richmond & Harriet Sts., Cincinnati, O.
Foundation Co., 115 Broadway, New York.
French, Arthur W., Worcester Polytechnic Institute, Worcester, Mass.
General Fireproofing Co., Youngstown, O.
Hennebique Construction Co., 1170 Broadway, New York.
Interlocking Steel Co., Cleveland, O.
Kidde, Walter, 140 Cedar St., New York.
Lock Joint Pipe Co., 165 Broadway, New York.

Mention "Engineering Record" when writing.

MacArthur Concrete Pile Co., 11 Pine St., New York.
 Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 National Fire Proofing Co., Pittsburgh, Pa.
 Raymond Concrete Pile Co., New York & Chicago.
 Reinforced Concrete Pipe Co., Jackson, Mich.
 Roebling Construction Co., 949 Broadway, New York.
 Trussed Concrete Steel Co., Detroit, Mich.
 Tucker & Vinton, 103 Park Ave., New York.
 Turner Construction Co., New York.
 United Paving Co., Atlantic City, N. J.
 Weber Chimney Co., 209 State St., Chicago, Ill.
 White & Co., J. G., 43-49 Exchange Pl., New York.

Concrete Mixers (See Mixers Concrete)

Concrete Reinforcement

Alberthaw Construction Co., Boston, Mass.
 American Steel & Wire Co., 115 Adams St., Chicago, Ill.
 American System of Reinforcing, 189 La Salle St., Chicago, Ill.
 Buffalo Steel Co., Tonawanda, N. Y.
 Builders' Material Supply Co., 301-335 Scarrett Bldg., Kansas City, Mo.
 Calumet Steel Co., Chicago, Ill.
 Carey Construction Co., 211 Lenox Bldg., Cleveland, O.
 Clinton Wire Cloth Co., Clinton, Mass.
 Concrete Steel Co., 29 Broadway, New York.
 Corrugated Bar Co., 1410 Bank of Commerce Bldg., St. Louis, Mo.
 General Fireproofing Co., Youngstown, O.
 Hough Co., W. B., Monadnock Bldg., Chicago, Ill.
 Hudson Structural Steel Co., 136th St. & So. Boulevard, New York.
 Inland Steel Co., Chicago, Ill.
 Interlocking Steel Co., Cleveland, O.
 Jones & Laughlin Steel Co., Pittsburgh, Pa.
 Mitchell & Tappen, 122 Liberty St., New York.
 National Wire Cloth Co., Sandusky, O.
 Ransome, Ernest L., 11 Broadway, New York.
 Roebling Construction Co., 949 Broadway, New York.
 Trussed Concrete Steel Co., Detroit, Mich.
 Turner Construction Co., New York.
 Warner Co., Charles, Wilmington, Del.

Concrete Waterproofing (See Waterproofing, Cement Concrete)

Condensers

Alberger Condenser Co., 140 Cedar St., New York.
 Alberger Pump Co., 140 Cedar St., New York.
 Allis-Chalmers Co., Milwaukee, Wis.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Dean Bros. Steam Pump Works Indianapolis, Ind.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Epping-Carpenter Co., Pittsburg, Pa.
 International Steam Pump Co., 115 Broadway, New York.
 Kellogg Co., M. W., 50 Church St., New York.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
 Phoenix Iron Works Co., Meadville, Pa.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Union Steam Pump Co., Battle Creek, Mich.

Mention "Engineering Record" when writing.

Westinghouse Machine Co., Pittsburg, Pa.
Wheeler, C. H., Mfg. Co., Philadelphia, Pa.
Williamson Bros.' Co., Aramingo Ave. & Cumberland,
Philadelphia, Pa.

Conduit Work

Adjustable Steel Centering Co., Fond Du Lac, Wis.
Blaw Collapsible Steel Centering Co., 710 Westinghouse
Bldg., Pittsburgh, Pa.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Fibre Conduit Co., Orangeburg, N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Minwax Co., 1123 Broadway, New York.
United Paving Co., Atlantic City, N. J.
White & Co., J. G., 43-49 Exchange Pl., New York.

Conduits (Creosoted Wood)

Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Wyckoff Pipe & Creosoting Co., 50 Church St., New
York.

Conduits (Electric Wiring)

Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Johns-Manville Co., H. W., 100 William St., New York.

Conduits (Steel)

Graver Tank Works, Wm., East Chicago, Ind.
Mitchell & Tappen, 122 Liberty St., New York.

Conduits (Vitrified Clay)

Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Evans & Howard Fire Brick Co., St. Louis, Mo.
National Fire Proofing Co., Pittsburg, Pa.
N. Y. State Sewer Pipe Co., Rochester, N. Y.
Warner Co., Charles, Wilmington, Del.

Contractors (General)

Aberthaw Construction Co., Boston, Mass.
American Concrete Steel Co., Newark, N. J.
Ash, John Wm., Austell, Ga.
Atlantic Gulf & Pacific Co., Park Row Bldg., New York.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Carey Construction Co., 211 Lennox Bldg., Cleveland.
Central States Bridge Co., Indianapolis, Ind.
Champion Bridge Co., Wilmington, Ohio.
Concrete Steel Co., 29 Broadway, New York.
Cuozzo, Donato, Park Row Bldg., New York.
Ellicott Machine Co., Bush & 7th Sts., Baltimore, Md.
Foundation Co., 115 Broadway, New York.
Hennebique Construction Co., 1170 B'way, New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Jackson, Geo. W., 754-756 Jackson Blvd., Chicago, Ill.
Kidde, Walker, 140 Cedar St., New York.
Lackawanna Bridge Co., 50 Church St., New York.
Lackawanna Steel Co., 2 Rector St., New York.
MacArthur Concrete Pile Co., 11 Pine St., New York.
N. Y. Continental Jewell Filtration Co., 15 Broad St.,
New York.
O'Rourke Engrg. & Construction Co., New York.
Scherzer Rolling Lift Bridge Co., 1616 Monadnock
Block, Chicago, Ill.
Snare & Triest, 143 Liberty St., New York.
Tucker & Vinton, 103 Park Ave., New York.
United Paving Co., Atlantic City, N. J.
Wardwell, Frederick S., Stamford, Conn.
Worden-Allen Co., 115 Adams St., Chicago, Ill.

Mention "Engineering Record" when writing.

Conveying Machinery

Allis-Chalmers Co. Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Atlas Dryer Co., Cleveland, Ohio.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Conveying Weigher Co., 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Hadsell Engineering Co., Scranton, Pa.
Hunt Co., C. W., West New Brighton, N. Y.
Maine Electric Co., Portland, Me.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Power & Mining Machinery Co., Milwaukee, Wis.
Robins Conveying Belt Co., 13 Park Row, N. Y.
Russel Wheel & Foundry Co., Detroit, Mich.
Smith, T. L., Co., 305 Old Colony Bldg., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Trenton Iron Co., Trenton, N. J.
Union Iron Works, Hoboken N. J.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, O.

Conveyors (Automatic Power)

Fairbanks Co., New York & Chicago.
Hunt Co., C. W., West New Brighton, N. Y.
Russel Wheel & Foundry Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Conveyors (Belt)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Boston Belting Co., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Conveying Weigher Co., 92 West St., New York.
Cresson, Geo. V., Co., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Hunt Co., C. W., West New Brighton, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
National Belting Co., Lawrence, Mass.
N. Y. Leather Belting Co., 51 Beekman St., New York.
Power & Mining Machinery Co., Milwaukee, Wis.
Revere Rubber Co., Boston, Mass.
Robins Conveying Belt Co., 13 Park Row, New York.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Conveyors (Cable)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Broderick & Bascom Rope Co., St. Louis, Mo.
Carson Trench Machine Co., 16 Dorrance St., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Hunt Co., C. W., West New Brighton, N. Y.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Trenton Iron Co., Trenton, N. J.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Mention "Engineering Record" when writing.

Conveyors (Chain)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St.,
Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Mead-Morison Mfg. Co., Cambridge, Mass.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Power & Mining Machinery Co., Milwaukee, Wis.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Conveyors (Trench Excavating)

Buckeye Traction Ditcher Co., Findlay, Ohio.
Chain Belt Co., Milwaukee, Wis.
Marion Steam Shovel Co., Marion, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
New York Cableway & Engineering Co., 2 Rector St.,
New York.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Cooling Towers

Alberger Condenser Co., 140 Cedar St., New York.
Alberger Pump Co., 140 Cedar St., New York.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Graver Tank Works, Wm., East Chicago, Ind.
International Steam Pump Co., 115 B'way, New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Wheeler, C. H., Mfg. Co., Philadelphia, Pa.

Cordage

American Mfg. Co., 65 Wall St., New York.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.

Cornices

Berger Mfg. Co., Canton, Ohio.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Milliken Bros., Milliken, N. Y.

Corporation Cocks

Clow, James B., & Sons, 342 Franklin St., Chicago, Ill.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Powell Co., Wm., Cincinnati, Ohio.
Smith, A. P., Mfg. Co., Passaic Ave., N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Waterworks Equipment Co., 50 Church St., New York.

Couplings (Flange)

Allis-Chalmers Co., Milwaukee, Wis.
American Spiral Pipe Works Chicago, Ill.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Broderick & Bascom Rope Co., St. Louis, Mo.
Chain Belt Co., Milwaukee, Wis.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St.,
Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Leader Foundry & Machine Co., Quincy, Ill.
Marine Metal & Supply Co., 167 South St., New York.

Mention "Engineering Record" when writing.

Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Couplings (Friction Clutch)

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cresson, Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Platt Iron Works Co., Dayton, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Couplings (Large Pipe)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Marine Metal & Supply Co., 167 South St., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Couplings (Pipe)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Marine Metal & Supply Co., 167 South St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Couplings (Shaft)

Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Platt Iron Works Co., Dayton, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Covering (See Pipe and Boiler Covering)

Cranes and Hoists

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Channon Co., H., Chicago, Ill.
Chisolm & Moore Mfg. Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Euclid Crane & Hoist Co., Euclid, Ohio.
Fairbanks Co., New York & Chicago.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Maine Electric Co., Portland, Me.
Obermayer Co., S., Cincinnati, Ohio.
Peteler Car Co., Minneapolis, Minn.
Zelnicker Supply Co., W. A., 406 N. 4th St., St. Louis.

Mention "Engineering Record" when writing.

Cranes (Air)

Ingersoll-Rand Co., 11 Broadway, New York.
Maine Electric Co., Portland, Me.
Obermayer Co., S., Cincinnati, Ohio.

Cranes (Derrick)

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
New York Cableway & Engineering Co., 2 Rector St., New York.
Terry & Tench, New York.
Williams Co., G. H., 1513 Rockefeller Bldg, Cleveland, O.

Cranes (Electric)

Brown Hoisting Machinery Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors Plant Mfg. Co., 120 Erie St., Buffalo, N. Y.
Euclid Crane & Hoist Co., Euclid, Ohio.
Kratzer & Co., W. N., Pittsburg, Pa.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co. 1775 Old Colony Bldg., Chicago, Ill.
Maine Electric Co., Portland, Me.
Obermayer Co., S., Cincinnati, Ohio.

Cranes (Hand-Power)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wyckliffe, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Ellicott Machine Co., Bush & 7th Sts., Baltimore, Md.
Hunt Co., C. W., West New Brighton, N. Y.
Maine Electric Co., Portland, Me.
Terry & Tench, New York.
Whitehead-Kales Iron Works, Detroit, Mich.

Cranes (Jib)

Allis-Chalmers Co., Milwaukee, Wis.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wyckliffe, Ohio.
Contractors' Plant Mfg Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Maine Electric Co., Portland, Me.
Terry & Tench, New York.
Whitehead & Kales Iron Works, Detroit, Mich.

Cranes (Locomotive)

American Hoist & Derrick Co., St. Paul, Minn.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wyckliffe, Ohio.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.

Mention "Engineering Record" when writing.

Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, O.

Cranes (Traveling)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Cleveland Crane & Engineering Co., Wyckliffe, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Kratzer & Co., W. N., Pittsburg, Pa.
Obermayer Co., S., Cincinnati, Ohio.
Russel Wheel & Foundry Co. Detroit, Mich.
Terry & Tench, New York.
Whitehead & Kales Iron Works, Detroit, Mich.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, O.

Cranes (Wrecking)

Bucyrus Co., So. Milwaukee, Wis.

Crayons (Marking)

Dixon Crucible Co., Jos., Jersey City, N. J.
Zelnicker Supply Co., Walter A., 406 No. South St., St.
Louis, Mo.

Creosote

Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Kettle River Quarries Co., Minneapolis, Minn.
Southern Wood Preserving Co., Atlanta, Ga.
Wyckoff Pipe & Creosoting Co., 50 Church St., New
York.

Creosoted Blocks, Lumber, Etc.

American Creosote Works, New Orleans, La.
American Creosoting Co., 95 Liberty St., New York.
Barber Asphalt Paving Co., Maurer, N. J.
Gulfport Creosoting Co., Gulfport, Miss.
Kettle River Quarries Co., Minneapolis, Minn.
Oregonia Bridge Co., Lebanon, Ohio.
Southern Wood Preserving Co., Atlanta, Ga.
U. S. Wood Preserving Co., 165 Broadway, N. Y.
Wyckoff Pipe & Creosoting Co., 50 Church St., New
York.

Creosoting

American Creosote Works, New Orleans, La.
Barber Asphalt Paving Co., Maurer, N. J.
Gulfport Creosoting Co., Gulfport, Miss.
Kettle River Quarries Co., Minneapolis, Minn.
Southern Wood Preserving Co., Atlanta, Ga.
U. S. Wood Preserving Co., 165 Broadway, New York.
Wyckoff Pipe & Creosoting Co., 50 Church St., New
York.

Creosoting Cylinders

Allis-Chambers Co., Milwaukee, Wis.
Graver Tank Works, Wm., East Chicago, Ill.
Petroleum Iron Works Co., Sharon, Pa.
Power & Mining Machinery Co., Milwaukee, Wis.

Crossings, Railway (See Frogs and Switches)

Crusher Parts and Repairs

Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Bartlett & Snow Co., C. O., Cleveland, O.

Mention "Engineering Record" when writing.

Coldwell-Wilcox Co., Newburgh, N. Y.
 International Steam Pump Co., 115 Broadway, New York.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 National Mixer Co., Powers Bldg., Rochester, N. Y.
 Pennsylvania Steel Co., Steelton, Pa.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Taylor Iron & Steel Co., High Bridge, N. J.

Crushers (Gyratory)

Abenague Machine Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 Austin Mfg. Co., Chicago, Ill.
 Austin-Western Co., Ltd., Chicago, Ill.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.

Crushers (Jaw)

Abenague Machinery Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 Austin Mfg. Co., Chicago, Ill.
 Austin-Western Co., Ltd., Chicago, Ill.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Coldwell-Wilcox & Co., Newburgh, N. Y.
 Cresson Co., Geo. V., Allegheny Ave. West of 17th St., Philadelphia, Pa.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 Good Roads Machinery Co., Kennet Square, Pa.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Kelly-Springfield Road Roller Co., Springfield, Ohio.
 Kent Mill Co., 170 Broadway, New York.
 Koehring Machine Co., Milwaukee, Wis.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Pennsylvania Steel Co., Steelton, Pa.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 Universal Road Machinery Co., 120 Liberty St., New York.
 Williams' Patent Crusher & Pulverizer Co., Chicago, Ill.

Crushing Rolls

Allis-Chalmers Co., Milwaukee, Wis.
 American Pulverizer Co., St. Louis, Mo.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Conveying Weigher Co., 92 West St., New York.

Mention "Engineering Record" when writing.

Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.
Hunt Co., C. W., West New Brighton, N. Y.
Kent Mill Co., 170 Broadway, New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Pennsylvania Steel Co., Steelton, Pa.
Power & Mining Machinery Co., Milwaukee, Wis.
Ransome Concrete Machinery Co., Dunellen, N. J.
Raymond Bros.' Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston Mass.
Troy Public Works Co., Utica, N. Y.
Vulcan Iron Works, Wilkes-Barre, Pa.

Culverts (See Also Pipe, Vitrified, Etc.)

American Spiral Pipe Works, Chicago, Ill.
Ash, John Wm., Austell, Ga.
Berger Mfg. Co., Canton, O.
Blaw Collapsible Steel Centering Co., 710 Westinghouse Bldg., Pittsburgh, Pa.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Clinton Bridge & Iron Works, Clinton, Iowa.
Evans & Howard Fire Brick Co., St. Louis, Mo.
Lock Joint Pipe Co., 165 Broadway, New York.
McWane Pipe Works, 220 Broadway, New York.

Cupolas

Obermayer Co., S., Cincinnati, Ohio.
Pyro Clay Product Co., Oak Hill, Ohio.

Curb Boxes (Meter)

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
McWane Pipe Works, 220 Broadway, New York.

Curb (Steel)

Berger Mfg. Co., Canton, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Kratzer & Co., W. N., Pittsburg, Pa.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Cutters (Rod and Bolt)

Hayward & Co., S. F., 39 Park Pl., New York.
Pels & Co., Henry, 90 West St., New York.

Cutting (Oxy-Acetylene Process)

Davis-Bournonville Co., 90 West St., New York.

Cylinders

Graver Tank Works, William, East Chicago, Ind.
Janney, Steinmetz & Co., Philadelphia, Pa.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Mitchell & Tappen, 122 Liberty St., New York.
Power & Mining Machinery Co., Milwaukee, Wis.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Dams (Concrete)

Aberthaw Construction Co., Boston, Mass.
Ambursen Hydraulic Constr. Co., 176 Federal St., Boston.
American Pipe & Construction Co., Philadelphia, Pa.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Carey Construction Co., 211 Lenox Bldg., Cleveland, O.
Concrete Steel Engineering Co., Park Row Bldg., New York.
Cuozzo, Donato, Park Row Bldg., New York.
Foundation Co., 115 Broadway, New York.
United Paving Co., Atlantic City, N. J.
White & Co., J. G., 43-49 Exchange Pl., New York.
Wardwell, Frederick S., Stamford, Conn.

Mention "Engineering Record" when writing.

Derails

Wiener Co., Ernst, 470 Hudson Terminal, New York.

Derrick Crabs

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383 Atlantic Ave., Boston, Mass.
Browning Mfg. Co., Cleveland, Ohio.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Dake Engine Co., Grand Haven, Mich.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Pittsburg Block Mfg. Co., 818 South Ave., Pittsburg, Pa.
Terry & Tench, New York.

Derrick Irons

American Hoist & Derrick Co., St. Paul, Minn.
Atkinson, Wm. H. Co., Hudson River at 7th St., Hoboken, N. J.
Berlin Construction Co., Berlin, Conn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Browning Mfg. Co., Cleveland, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory Mfg. Co., S., Bangor, Pa.
Hayward Co., 50 Church St., New York.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Monighan Machine Co., 2016 & 2030 Carroll Ave., Chicago.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Terry & Tench, New York.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago.

Derricks and Derrick Fittings

American Bridge Co., 30 Church St., New York.
American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Browning Mfg. Co., Cleveland, Ohio.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Des Moines Bridge & Iron Co., Des Moines, Iowa.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory Mfg. Co., S., Bangor, Pa.
Hayward Co., 50 Church St., New York.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
New York Cableway & Engineering Co., 2 Rector St., New York.

Mention "Engineering Record" when writing.

Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South St., Pittsburg, Pa.
Russel Wheel & Foundry Co., Detroit, Mich.
Stuebner Iron Works, J. L., Foot of 12th st., Long
Island City, N. Y.
Terry & Tench, New York.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Wickes Bros., 90 West St., New York.
Williamson Bros.' Co., Aramingo & Cumberland Aves.,
Philadelphia, Pa.
Zelnicker Supply Co., Walter A., 406 Fourth Ave., St.
Louis, Mo.

Derricks (Pile Driving)

American Hoist & Derrick Co., St. Paul, Minn.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls., N. Y.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
MacArthur Concrete Pile Co., 11 Pine St., New York.
Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
New York Cableway & Engineering Co., 2 Rector St.,
New York.
Terry & Tench, New York.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Vulcan Iron Works, Chicago, Ill.
Williamson Bros.' Co., Aramingo & Cumberland Aves.,
Philadelphia, Pa.

Derricks (Steam)

American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old Col-
ony Bldg., Chicago, Ill.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Terry & Tench, New York.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland.
Williamson Bros.' Co., Aramingo Ave. & Cumberland,
Philadelphia, Pa.

Dinkeys (See Locomotives, Industrial)

Dipper Teeth

Taylor Iron & Steel Co., High Bridge, N. J.

Distributors (Oil and Tar)

American Tar Co., Boston, Mass.

Ditching Machinery, Steam Shovels, Etc. (See Excavating Machinery, Also Trench Excavating Machinery)

Mention "Engineering Record" when writing.

Doors (Rolling)

Berger Mfg. Co., Canton, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Milliken Bros., Milliken, N. Y.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Whitehead-Kales Iron Works, Detroit, Mich.
Wilson, J. G. Mfg. Co., New York.

Drafting Instruments and Supplies (See Engineers' and Surveyors' Instruments and Supplies)

Dredging Sleeves

Revere Rubber Co., Boston, Mass.
Walker, John L., Mobile, Ala.

Dredging Machinery

American Rock Cutter Co., 92 Broadway, New York.
Atkinson, Wm. H. Co., Hudson River at 7th St., Hobo-
ken, N. J.
Atlantic Gulf & Pacific Co., Park Row Bldg., New York.
Bellefontaine Foundry Machine Co., Bellefontaine, Ohio.
Bucyrus Co., So. Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St.,
Philadelphia, Pa.
Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md.
Erie Pump & Engine Works, Erie, Pa.
Hayward Co., 50 Church St., New York.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Lake Erie Engineering Works, Buffalo, N. Y.
Leschen & Sons Rope Co., A., St. Louis, Mo.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Marion Steam Shovel Co., Marion, Ohio.
Morris Machine Works, Baldwinsville, N. Y.
Osgood Dredging Co., 51 State St., Albany, N. Y.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Williamson Bros.' Co., Aramingo & Cumberland Aves.,
Philadelphia, Pa.

Drift Pins

Cleveland City Forge & Iron Co., Cleveland, Ohio.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Pittsburg Mfg. Co., Pittsburg, Pa.
Terry & Tench, New York.

Drilling Machines (Blast-Hole)

Channon Co., H., Chicago, Ill.
Cyclone Drill Co., Orrville, Ohio.
Keystone Driller Co., Beaver Falls, Pa.
Star Drilling Machine Co., Akron, Ohio.

Drilling Rope

American Mfg. Co., 65 Wall St., New York.
Cyclone Drill Co., Orrville, Ohio.
Leschen & Sons Rope Co., A., St. Louis, Mo.
New York Blasting Supply Co., 11 Broadway, New York.
Roebbling's Sons Co., Jno. A., Trenton, N. J.
Trenton Iron Co., Trenton, N. J.

Drills

Barron & Cole Co., 127 Franklin St., N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.

Mention "Engineering Record" when writing.

Fairbanks Co., New York & Chicago.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Keystone Driller Co., Beaver Falls, Pa.
Marine Metal & Supply Co., 167 South St., New York.
Star Expansion Bolt Co., 147-149 Cedar St., New York.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wood Drill Works, Paterson, N. J.

Drills (Diamond Core)

Cyclone Drill Co., Orrville, Ohio.
Ingersoll-Rand Co., 11 Broadway, New York.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Terry Core Drill Co., 50 Church St., New York.
Wickes Bros., 90 West St., New York.

Drills (Diamondless Core)

Cyclone Drill Co., Orrville, Ohio.
Ingersoll-Rand Co., 11 Broadway, New York.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Terry Core Drill Co., 50 Church St., New York.

Drills (Electric)

Cyclone Drill Co., Orrville, Ohio.
Ingersoll-Rand Co., 11 Broadway, New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Obermayer Co., S., Cincinnati, Ohio.

Drills (Pneumatic)

Independent Pneumatic Tool Co., 1307 Michigan Ave., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Drills (Rock)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Fairbanks, Morse & Co., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
McKiernan Drill Co., 115 Broadway, New York.
New York Blasting Supply Co., 11 Broadway, New York.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wickes Bros., 90 West St., New York.
Wood Drill Works, Paterson, N. J.

Drills (Electric-Air, Rock)

Barron & Cole Co., 127 Franklin St., New York.
Cyclone Drill Co., Orrville, Ohio.
Ingersoll-Rand Co., 11 Broadway, New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Drums (Hoisting)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Barron & Cole Co., 127 Franklin St., New York.

Mention "Engineering Record" when writing.

Builders' Material Supply Co., 301-303 Scarritt Bldg.,
 Kansas City, Mo.
 Chain Belt Co., Milwaukee, Wis.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Ellicott Machine Co., Bush & 7th Sts., Baltimore, Md.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Longenecker, Chas. W. & Co., 150 Nassau St., New
 York.
 Maine Electric Co., Portland, Me.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Monighan Machine Co., 2016-2030 Carroll Ave., Chicago.
 New York Cableway & Engineering Co., 2 Rector St.,
 New York.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Wiliamson Bros. Co., Aramingo & Cumberland Aves.,
 Philadelphia, Pa.

Dryers (Cement, Asphalt and Sand)

American Process Co., 68 William St., New York.
 Atlas Dryer Co., Cleveland, Ohio.
 Bartlett, C. O., & Snow Co., Cleveland, Ohio.
 Cummer, F. D., & Son, 413 Acade, Cleveland, Ohio.
 Fuller Engineering Co., Allentown, Pa.
 Iroquois Iron Works Buffalo, N. Y.
 Kent Mill Co., 170 Broadway, New York.
 Manitowoc Boiler Works Co., Manitowoc, Wis.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Ruggles-Coles Engineering Co., 50 Church St., New
 York.
 Sharon Boiler Works, Florida St., Sharon, Pa.

Drying Apparatus (Hot-Blast)

American Blower Co., Detroit, Mich.
 American Process Co., 68 William St., New York.
 Atlas Dryer Co., Cleveland, Ohio.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
 Green Fuel Economizer Co., Mattewan, N. Y.
 New York Blower Co., Chicago, Ill.
 Ruggles-Coles Engineering Co., 50 Church St., New
 York.
 Sturtevant Co., B. F., Hyde Park, Mass.

Dump Boxes (See Boxes, Dump)

Dump Wagons (See Wagons, Dumping)

Dust Collectors

American Blower Co., Detroit, Mich.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 New York Blower Co., Chicago, Ill.
 Raymond Bros., Impact Pulverizer Co., 1500 Harrison St.,
 Chicago, Ill.
 Sturtevant Co., B. F., Hyde Park, Mass.

Dynamite (See Also Explosives)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Du Pont de Nemours, E. I., Powder Co., Wilmington,
 Del.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Keystone Powder Mfg. Co., Emporium, Pa.
 National Powder Co., 200 5th Ave., New York.
 New York Blasting & Supply Co., 11 B'way, New York.
 Sinnamahoning Powder Co., Emporium, Pa.

Mention "Engineering Record" when writing.

Dynamos

Abenaque Machine Works, Westminster Station, Vt.
Burke Electric Co., Erie, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wickes Bros., 90 West St., New York.

Economizers (See Fuel Economizers)

Westinghouse Machine Co., Pittsburg, Pa.

Ejectors

American Injector Co., Detroit, Mich.
Lunkenheimer Co., Cincinnati, Ohio.
Merritt & Co., 125 Front St., Camden, N. J.
Shone Co., 861 Blackhawk St., Chicago, Ill.

Electric Bells

Ostrander Co., W. R., 22 Dey St., New York.

Electric Trucks

Hunt Co., C. W., West New Brighton, N. Y.
Maine Electric Co., Portland, Me.
Studebaker Bros. Mfg. Co., South Bend, Ind.
Westinghouse Machine Co., Pittsburg, Pa.

Electrical Supplies

General Electric Co., Schenectady, N. Y.
Minwax Co., 1123 Broadway, New York.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Elevator Inclosures

Milliken Bros., Milliken, N. Y.
Reedy Co., H. J., Cincinnati, Ohio.
Schreiber & Sons Co., L., Cincinnati, Ohio.

Elevator Repairs

Reedy Co., H. J., Cincinnati, Ohio.

Elevators

Builders' Material Supply Co., 301-335 Scarritt Bldg., Co., Kansas City, Mo.
Eureka Stone & Ore Crushing Co., Cedar Rapids, Iowa.
Hunt Co., C. W., West New Brighton, N. Y.
Minneapolis Steel Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Reedy, H. J., Co., Cincinnati, Ohio.
Russel Wheel & Foundry Co., Detroit, Mich.

Elevators (Bucket)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Austin Mfg. Co., Chicago, Ill.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Chain Belt Co., Milwaukee, Wis.
Conveying Weigher Co., 92 West St., New York.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.

Mention "Engineering Record" when writing.

Power & Mining Machinery Co., Milwaukee, Wis.
Ransom Concrete Machinery Co., Dunellen, N. J.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sturtevant Mill Co. Harrison Sq., Boston, Mass.
Vulcan Iron Works, Wilkes-Barre, Pa.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Elevators (Builders')

American Hoist & Derrick Co., St. Paul, Minn.
Chain Belt Co., Milwaukee, Wis.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
Insley Mfg. Co., Indianapolis, Ind.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Monighan Machine Co., 2016-2030 Carroll Ave., Chicago.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago Ill.

Engineers and Contractors

Aberthaw Construction Co., Boston, Mass.
Albright & Mebus, Land Title Bldg., Philadelphia, Pa.
Alvord, Jno. W., 127 Hartford Bldg., Chicago, Ill.
American Bridge Co. 30 Church St., N. Y.
American Concrete Steel Co., Newark, N. J.
American District Steam Co., Lockport, N. Y.
American Engineering & Construction Co., 789-791-793 Drexel Bldg., Philadelphia, Pa.
American Pipe & Construction Co., 112 No. Broad St., Philadelphia, Pa.
Arnold Co., 181 La Salle St., Chicago, Ill.
Ash, John Wm., Austell, Ga.
Atlas Dryer Co., Cleveland, Ohio.
Barbour, F. A., Tremont Bldg., Boston, Mass.
Barrus, G. H. (room 301), 22 Pemberton St., Boston.
Berlin Construction Co., Berlin, Conn.
Breite, W. W., 702 Clunie Bldg., San Francisco, Cal.
Brill & Gardner, 1134 Marquette Bldg., Chicago, Ill.
Buff & Buff Mfg. Co., Boston, Mass.
Burgess, Kimberly & Long, Columbus, Ohio.
Bush, H. M., 69 No. 4th St., Columbus, Ohio.
Byllesby & Co., H. M., 218 La Salle St., Chicago, Ill.
Cameron Septic Tank Co., 352 and 356 Monadnock Block, Chicago, Ill.
Carey Construction Co., 211 Lennox Bldg., Cleveland, O.
Central States Bridge Co., Indianapolis, Ind.
City Wastes Disposal Co., 156 5th Ave., New York.
Clinton Bridge & Iron Works, Clinton, Iowa.
Concrete Steel Co., 29 Broadway, N. Y.
Conard, Wm. R., 322 High St., Burlington, N. J.
Conveying Weigher Co. 92 West St., New York.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.
Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
Darrach-Gobrecht, Chas., Washington, D. C.
Dawley, Edwin P., Banigan Bldg., Providence, R. I.
Dodge & Day, Philadelphia, Pa.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Elliott, J. W., 17 Adsit Pl., Burlington, Vt.
Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
Fanning, J. T., 330 Hennepin Ave., Minneapolis, Minn.
Farrington, Harvey, 45 Broadway, New York.

Mention "Engineering Record" when writing.

Ferro-Concrete Construction Co., Richmond & Harriet
 Sts., Cincinnati, Ohio.
 Fidelity Engineering & Inspecting Co., 30 Church St.,
 New York.
 Foundation Co., 115 Broadway, New York.
 Field, Wm. P., Prudential Bldg., Newark, N. J.
 Fuertes, James H., 140 Nassau St., New York.
 Fuller Engineering Co., Allentown, Pa.
 Fuller, Frank L., 12 Pearl St., Boston, Mass.
 Gray, Samuel M., Weybosset St., Providence, R. I.
 Grunsky, C. E., 45 Broadway, New York.
 Halleatt, Nelson A., 1 Ashburton Place, Boston, Mass.
 Harrison Engineering Co., New York.
 Hazelhurst & Anderson, Candler Bldg., Atlanta, Ga.
 Hazen, Allen, 103 Park Ave., New York.
 Hepp, Augustus C., 143 Liberty St., New York.
 Hering & Fuller, 170 Broadway, New York.
 Hill Jr., Nicholas S., 100 William St., New York.
 Hill, W. R., 53 State St., Albany, N. Y.
 Hirschburg-Williams-Washburn Co., 410 Stephenson
 Bldg., Milwaukee, Wis.
 Hogg, J. B., 828 Park Bldg., Pittsburg, Pa.
 Hydro Bar Waterproofing Co., New York.
 Industrial News Bureau, Ithaca, N. Y.
 Iowa Engineering Co., Clinton, Iowa.
 Kidde, Walter, 140 Cedar St., New York.
 Kiersted, Wynkoop, 58 Waterworks Bldg., Kansas City.
 Knight & Hopkins, Rome, N. Y.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Leavitt, Jr., Chas. W., 220 Broadway, New York.
 Lederle & Provost, 39-41 W. 38th St., New York.
 Ley & Co., Fred T., 29 Broadway, New York.
 Lydon, Lamar, 2 Rector St., New York.
 MacArthur Concrete Pile Co., 11 Pine St., New York.
 Main, Charles T., 201 Devonshire St., Boston, Mass.
 Maine Electric Co., Portland, Me.
 Maury, Dabney H., 129 N. Jefferson Ave., Peoria, Ill.
 Meehan & Sons, Thos., Mt. Airy, Philadelphia Pa.
 Metcalf & Lddy, 14 Beacon St., Boston, Mass.
 Meyer, Jr., Henry C., 1 Madison Ave., New York.
 Milliken Bros., Milliken, N. Y.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave.,
 Minneapolis, Minn.
 Morrison, H. H., Board of Education Bldg., St. Louis.
 Morse, W. F., 111 Broadway, New York.
 Kleinschmidt, Henry S., Salt Lake City, Utah.
 New York Blower Co., Chicago, Ill.
 O'Rourke Engineering & Construction Co., New York.
 Owen, James, 196 Market St., Newark, N. J.
 Penn Bridge Co., Beaver Falls, Pa.
 Phillips, Richard H., Security Bldg., St. Louis, Mo.
 Potter, Alexander, 114 Liberty St., New York.
 Potts, Clyde, 30 Church St., New York.
 Power Specialty Co., 111 Broadway, New York.
 Raymond Concrete Pile Co., New York & Chicago.
 Riggs & Sherman Co., 613, The Nasby, Toledo, Ohio.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Rogers & Latimer, 5 East 42d St., New York.
 Runyon & Carey, 47 West 34th St., New York.
 Scherzer Rolling Lift Bridge Co., 1616 Monadnock Block,
 Chicago, Ill.
 Shankland, E. C. & R. M., The Rookery, Chicago, Ill.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia.
 Shone Co., 861 Blackhawk St., Chicago, Ill.
 Skene, Frederick, 149 Broadway, New York.
 Snare & Triest, 143 Liberty St., New York.

Mention "Engineering Record" when writing.

SooySmith, Charles, 71 Broadway, New York.
 Stone & Webster Engineering Corporation, Stone & Webster Bldg., Boston, Mass.
 Terry & Tench, New York.
 Thorpe, Lewis D., 201 Devonshire St., Boston, Mass.
 Tribus & Massa, 86 Warren St., New York.
 Uffendell, Gibbons W., 234 Michigan Ave., Chicago, Ill.
 Underpinning Co., 290 Broadway, New York.
 United Paving Co., Atlantic City, N. J.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Waddell & Harrington, 1012 Baltimore Ave., Kansas City, Mo.
 Wales, F. C., 8 Beacon St., Boston, Mass.
 Wallace & Co., Jos. H., Temple Court Bldg., New York.
 Wardwell, Frederick S., Stamford, Conn.
 Webster, A. L., 43-49 Exchange Pl., New York.
 Weston, Edmond B., 86 Weybosset St., Providence, R. I.
 Weston, Robert Spurr, 14 Beacon St., Boston, Mass.
 Whipple, Geo. C., 103 Park Ave., New York.
 White & Co., J. G., 43-49 Exchange Pl., New York.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C. R. R., Detroit, Mich.
 Wilkins Co., William G., Westinghouse Bldg., Pittsburgh, Pa.
 Wilson, Harris & Richards, Drexel Bldg., Phila., Pa.
 Wingfield, Nisbet, 811 Ellis St., Augusta, Ga.
 Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg., Milwaukee, Wis.
 Wise & Watson, 34 Bloomfield Ave., Passaic, N. J.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Engineers' and Surveyors' Instruments and Supplies

Ainsworth & Son., Wm., Denver, Col.
 Aloe Co., A. S., 313 Olive St., St. Louis, Mo.
 Architects' & Engineers' Supply Co., 1010 Grand Ave., Kansas City, Mo.
 Bausch & Lomb Optical Co., Rochester, N. Y.
 Berger & Sons, C. L., Boston, Mass.
 Buff & Buff Mfg. Co., Boston, Mass.
 French, Arthur W., Worcester Polytechnic Institute, Worcester, Mass.
 Geier & Bluhm, Troy, N. Y.
 Iszard-Warren Co., N. Fourth St., Philadelphia, Pa.
 Keuffel & Esser Co., Hoboken, N. J.
 Kolesch & Co., 138 Fulton St., New York.
 Lufkin Rule Co., Saginaw, Mich.
 St. George, Henry V., Inc., 8-10 Grand St., New York.
 U. S. Wind Engine & Pump Co., Batavia, Ill.
 Wiebusch & Hilger, 106-110 Lafayette St., New York.
 Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Engines (Blowing)

Allis-Chalmers Co., Milwaukee, Wis.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Lake Erie Engineering Works, Buffalo, N. Y.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Murray Iron Works Co., Burlington, Iowa.
 Platt Iron Works Co., Dayton, Ohio.
 Southwark Foundry & Machine Co., Phila., Pa.
 Westinghouse Machine Co., Pittsburgh, Pa.

Engines (Compressed Air)

Abenague Machine Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.

Mention "Engineering Record" when writing.

American Well Works, Aurora, Ill.
Dake Engine Co., Grand Haven, Mich.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
Ingersoll-Rand Co., 11 Broadway, New York.
International Steam Pump Co., 115 Broadway, New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Murray Iron Works Co., Burlington, Iowa.
Southwark Foundry & Machine Co., Phila., Pa.
Westinghouse Machine Co., Pittsburg, Pa.

Engines (Corliss)

Allis-Chalmers Co., Milwaukee, Wis.
Lake Erie Engineering Works, Buffalo, N. Y.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Marine Metal & Supply Co., 167 South St., New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Murray Iron Works Co., Burlington, Iowa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Westinghouse Machine Co., Pittsburg, Pa.
Wickes Bros., 90 West St., New York.

Engines (Deep-Well Pumping)

Advance Pump & Compressor Co., Battle Creek, Mich.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Buffalo Steam Pump Co., Buffalo, N. Y.
Builders' Material Supply Co., 301-305 Scarritt Bldg., Kansas City, Mo.
Channon Co., H., Chicago, Ill.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
Epping-Carpenter Co., Pittsburg, Pa.
Foos Gas Engine Co., Springfield, Ohio.
International Steam Pump Co., 115 Broadway, New York.
Keystone Driller Co., Beaver Falls, Pa.
Mietz, August, 128-138 Mott St., New York.
National Meter Co., 84 Chambers St., New York.
Platt Iron Works Co., Dayton, Ohio.
Rider-Ericsson Engine Co., 35 Warren St., New York.
Sheffield Gas Power Co., Kansas City, Mo.
Union Steam Pump Co., Battle Creek, Mich.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Westinghouse Machine Co., Pittsburg, Pa.

Engines (Gas, Gasoline, Oil)

Abenague Machine Works, Westminster Station, Vt.
Allis-Chalmers Co., Milwaukee, Wis.
Buckeye Engine Co., Salem, Ohio.
Channon Co., H., Chicago, Ill.
Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
Dunning, W. D., Syracuse, N. Y.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
FERNYAK & STAVENIK Machine Co., Mansfield, Ohio.
Flint & Walling Mfg. Co., Kendallville, Ind.
Foos Gas Engine Co., Springfield, Ohio.
General Electric Co., Schenectady, N. Y.
Hush, H. J., 39-41 Cortlandt St., New York.
Lake Erie Engineering Works, Cor. of Chicago & Perry Sts., Buffalo, N. Y.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.

Mention "Engineering Record" when writing.

Mietz, August, 128-138 Mott St., New York.
 Minneapolis Steel & Machinery Co. 2854 Minnehaha Ave.,
 Minneapolis, Minn.
 National Meter Co., 84 Chambers St., New York.
 Parker, A. A., Waterford, N. Y.
 Power & Mining Mchy. Co., Milwaukee, Wis.
 Sheffield Gas Power Co., Kansas City, Mo.
 Standard Scale & Supply Co., 50-52 So. Canal St., Chi-
 cago, Ill.
 Struthers-Wells Co., Warren, Pa.
 Troy Public Works Co., Utica, N. Y.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wickes Bros., 90 West St., New York.

Engines (High-Duty Pumping)

Abenague Machine Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 De Laval Steam Turbine Co., Trenton, N. J.
 D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
 Dow Pumping Engine Co., Geo. E., 179 First St., San
 Francisco, Cal.
 Epping-Carpenter Co., Pittsburg, Pa.
 International Steam Pump Co., 115 Broadway, New York.
 Lake Erie Engineering Works, Cor. of Chicago & Perry
 Sts., Buffalo, N. Y.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 Mietz, August, 128-138 Mott St., New York.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha
 Ave., Minneapolis, Minn.
 Murray Iron Works Co., Burlington, Iowa.
 National Meter Co., 84 Chambers St., New York.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Westinghouse Machine Co., Pittsburg, Pa.

Engines (Hoisting)

Abenague Machine Works, Westminster Station, Vt.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Hoist & Derrick Co., St. Paul, Minn.
 Barron & Cole Co., 127 Franklin St., New York.
 Bellefontaine F'dry & Machine Co., Bellefontaine, O.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Browning Mfg. Co., Cleveland, Ohio.
 Channon Co., H., Chicago, Ill.
 Clyde Iron Works, Duluth, Minn.
 Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Dake Engine Co., Grand Haven, Mich.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Ellicott Machine Co., Bush & Severn Sts., Baltimore.
 Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Flory Mfg. Co., S., Bangor, Pa.
 Foos Gas Engine Co., Springfield, Ohio.
 Haiss Mfg. Co., Geo., New York.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., Wm. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old Col-
 ony Bldg., Chicago, Ill.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 Maine Electric Co., Portland, Me.
 Marine Metal & Supply Co., 167 South St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65 and 67 Dey St., New York.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.

Mention "Engineering Record" when writing.

Mead-Morrison Mfg. Co., Cambridge, Mass.
 Mietz, August, 128-138 Mott St., New York.
 Monighan Machine Co., 2016 and 2030 Carroll Ave., Chicago, Ill.
 New York Cableway & Engineering Co., 2 Rector St., New York.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Sheffield Gas Power Co., Kansas City, Mo.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Vulcan Iron Works, Wilkes-Barre, Pa.
 Westinghouse Machine Co., Pittsburg, Pa.
 Wickes Bros., 90 West St., New York.
 Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland, O.
 Williamson Bros. Co., Philadelphia, Pa.

Engines (Hot Air)

Allis-Chalmers Co., Milwaukee, Wis.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Rider-Ericsson Engine Co., 35 Warren St., New York.
 Williamson Bros. Co., Aramingo & Cumberland Aves., Philadelphia, Pa.

Engines (Incline Cableway)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Hunt Co., C. W., West New Brighton, N. Y.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 New York Cableway & Engineering Co., 2 Rector St., New York.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Vulcan Iron Works, Wilkes-Barre, Pa.

Engines (Oil)

American Well Works, Aurora, Ill.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Fairbanks, Morse & Co., Chicago, Ill.
 Foos Gas Engine Co., Springfield, Ohio.
 International Steam Pump Co., 115 B'way, New York.
 Mietz, August, 128-138 Mott St., New York.
 Sheffield Gas Power Co., Kansas City, Mo.
 Troy Public Works Co., Utica, N. Y.
 Westinghouse Machine Co., Pittsburg, Pa.

Engines (Portable)

Abenague Machine Works, Westminster Station, Vt.
 Avery Co., 984 Iowa St., Peoria, Ill.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Channon Co., H., Chicago, Ill.
 Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Flory Mfg. Co., S., Bangor, Pa.
 Foos Gas Engine Co., Springfield, Ohio.
 Hush, H. J., 39-41 Cortlandt St., New York.
 Leffel & Co., Jas., Springfield, Ohio.
 McDowell & Co., Grant & Western, Allegheny, Pa.
 Mietz, August, 128-138 Mott St., New York.
 Morris Machine Works, Baldwinsville, N. Y.
 Murray Iron Works Co., Burlington, Iowa.
 Sheffield Gas Power Co., Kansas City, Mo.
 Westinghouse Machine Co., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Engines (Steam)

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
American Hoist & Derrick Co., St. Paul, Minn.
American Well Works, Aurora, Ill.
Avery Co., 984 Iowa St., Peoria, Ill.
Buckeye Engine Co., Salem, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.
Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.
Cyclone Drill Co., Orrville, Ohio.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Erie Pump & Engine Works, Erie, Pa.
Fernyak & Stavenik Machine Co., Mansfield, Ohio.
Flory Mfg. Co., S., Bangor, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
International Steam Pump Co., 115 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Lawrence Pump & Engine Co., Lawrence, Mass.
Leffel & Co., Jas., Springfield, Ohio.
McCoy Co., Henry J., 65-67 Dey St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
McIntosh, Seymour & Co., New York.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Morris Machine Works, Baldwinsville, N. Y.
Murray Iron Works Co., Burlington, Iowa.
Phoenix Iron Works Co., Meadville, Pa.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Troy Public Works Co., Utica, N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Westinghouse Machine Co., East Pittsburg, Pa.

Engines (Traction)

Avery Co., 984 Iowa St., Peoria, Ill.
Buffalo-Pitts Co., Buffalo, N. Y.
Case Threshing Machine Co., J. I., Racine, Wis.
Farquhar Co., A. B., Box 704 York, Pa.
General Electric Co., Schenectady, N. Y.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Huber Mfg. Co., Dept. 13, Marion, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Mietz, August, 128-138 Mott St., New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.

Engines (Traction, Gasoline)

Abenaque Machine Works, Westminster Station, Vt.
Avery Co., 984 Iowa St., Peoria, Ill.
Buffalo-Pitts Co., Buffalo, N. Y.
Cyclone Drill Co., Orrville, Ohio.
Mietz, August, 128-138 Mott St., New York.

Evaporators

Buffalo Forge Co., Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Williamson Bros. Co., Aramingo & Cumberland Aves., Philadelphia, Pa.

Mention "Engineering Record" when writing.

Evaporating Machinery

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Williamson Bros. Co., Philadelphia, Pa.

Excavating Machinery

American Hoist & Derrick Co., St. Paul, Minn.
American Rockcutter Co., 32 Broadway, New York.
Atkinson Co., Wm. H., Hudson River at 7th St., Hoboken, N. J.
Atlantic Equipment Co., 30 Church St., New York.
Atlantic Gulf & Pacific Co., Park Row Bldg., New York.
Austin Drainage Excavator Co., F. C., Railway Exchange, Chicago.
Austin Mfg. Co., Chicago, Ill.
Austin-Western Co., Ltd., Chicago, Ill.
Avery Co., 984 Iowa St., Peoria, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Bellefontaine Foundry & Machine Co., Bellefontaine, O.
Browning Mfg. Co., Cleveland, Ohio.
Buckeye Traction Ditcher Co., Findlay, Ohio.
Bucyrus Co., So. Milwaukee, Wis.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Carson Trench Machine Co., 16 Dorrance St., Boston.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Ellicott Machine Co., Bush & Severn Sts., Baltimore.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Flory Mfg. Co., S., Bangor, Pa.
Hadsell Engineering Co., Scranton, Pa.
Hayward Co., 50 Church St., New York.
Heyworth, James O., Harvester Bldg., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Koehring Machine Co., Milwaukee, Wis.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marion Steam Shovel Co., Marion, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Monighan Machine Co., 2016-2030 Carroll Ave., Chicago.
Municipal Engineering & Contracting Co., 607-611 Ry. Exchange, Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
New York Cableway & Engineering Co., 2 Rector St., New York.
Osgood Dredge Co., 51 State St., Albany, N. Y.
Parsons Co., G. T., Newton, Iowa.
Souther & Co., John, Box 3118, Boston, Mass.
Southern Iron & Equipment Co., Atlanta, Ga.
St. Paul Ditcher & Carrier Co., St. Paul, Minn.
Taylor Iron & Steel Co., High Bridge, N. J.
Thew Automatic Shovel Co., Lorain, Ohio.
Trenton Iron Co., Trenton, N. J.
Troy Public Works Co., Utica, N. Y.
Union Iron Works, Lackawanna Siding, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Williams Co., G.H., 1513 Rockefeller Bldg., Cleveland, O.

Exhaust Heads

American Spiral Pipe Works, Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y.
Burt Mfg. Co., Akron, Ohio.
Sturtevant Co., B. F., Hyde Park, Mass.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Mention "Engineering Record" when writing.

Expanded Metal (See Fireproof Construction)

Expansion Joints

Alberger Condenser Co., 140 Cedar St., New York.
Alberger Pump Co., 140 Cedar St., New York.
American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Brohard Co., 3d St. & Lehigh Ave., Philadelphia, Pa.
Coldwell-Wilcox Co., Newburgh, N. Y.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Kellogg Co., M. W., 50 Church St., New York.
Minwax Co., 1123 Broadway, New York.
Power Specialty Co., 111 Broadway, New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Exploders

Bond Co., Harold L., 383 Atlantic Ave., Boston, Mass.
Du Pont de Nemours Powder Co., E. I., Wilmington, Del.
Keystone Powder Mfg. Co., Emporium, Pa.
National Powder Co., 200 Fifth Ave., New York.
New York Blasting Supply Co., 11 Broadway, New York.
Sinnamahoning Powder Co., Emporium, Pa.

Explosives

American Dynalite Co., Amherst, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Du Pont de Nemours Powder Co., E. I., Wilmington, Del.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Keystone Powder Mfg. Co., Emporium, Pa.
National Powder Co., 200 Fifth Ave., New York.
New York Blasting Supply Co., 11 Broadway, New York.
Sinnamahoning Powder Co., Emporium, Pa.
Trojan Powder Co., 65 Pine St., New York.

Eyes (Wire Rope)

American Hoist & Derrick Co., St. Paul, Minn.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Roebbling's Sons Co., Jno. A., Trenton, N. J.

Fans

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Baldwin, Wm. J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
New York Blower Co., Chicago, Ill.
Raymond Bros., Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wing Mfg. Co., L. J., 90 West St., New York.

Fans (Electric)

American Blower Co., Detroit, Mich.
Baldwin, Wm. J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.

Mention "Engineering Record" when writing.

General Electric Co., Schenectady, N. Y.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wing Mfg. Co., L. J., 90 West St., New York.

Fasteners (Sheeting Roofing)

Star Expansion Bolt Co, 147-149 Cedar St., New York.

Feed-Water Heaters

Alberger Condenser Co., 140 Cedar St., New York.
Alberger Pump Co., 140 Cedar St., New York.
American Spiral Pipe Works, Chicago, Ill.
Booth, L. M., Co., 136 Liberty St., New York.
Buffalo Steam Pump Co., Buffalo, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
International Steam Pump Co., 115 Broadway, New York.
Kewanee Boiler Co., Kewanee, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Mitchell & Tappen, 122 Liberty St., New York.
Murray Iron Works Co., Burlington, Iowa.
National Pipe Bending Co., New Haven, Conn.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Pittsburg Filter Mfg. Co., Pittsburg, Pa.
Platt Iron Works Co., Dayton, Ohio.
Sharon Boiler Works, Florida St., Sharon, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Wheeler, C. H., Mfg. Co., Philadelphia, Pa.
Williamson Bros. Co., Philadelphia, Pa.

Feed-Water Purifiers

Kellogg Co., M. W., 50 Church St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
New York Continental Jewell Filtration Co., 15 Broad St., New York.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Petroleum Iron Works Co., Sharon, Pa.
Platt Iron Works Co., Dayton, Ohio.
Pittsburg Filter Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Felt (See Also Waterproofing)

Bird & Son, F. W., East Walpole, Mass.
Bird & Co., J. A. & W., 34 India St., Boston, Mass.
Minwax Co., 1123 Broadway, New York.
Texas Co., 17 Battery Pl., New York.

Fence, Railing and Posts

Anchor Post Iron Works, 15 Church St., New York.
Belmont Iron Works, Philadelphia, Pa.
Berlin Construction Co., Berlin, Conn.
Clinton Bridge & Iron Works, Clinton, Iowa.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Fox & Co., John, 253 Broadway, New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Milliken Bros., Milliken, N. Y.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.
Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.

Filing Cases (Metal)

Berger Mfg. Co., Canton, Ohio.

Mention "Engineering Record" when writing.

Filters (Feed Water)

Booth, L. M., Co., 136 Liberty St., New York.
New York Continental Jewell Filtration Co., 15 Broad
St., New York.
Petroleum Iron Works Co., Sharon, Pa.
Pittsburg Filter Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.

Filters (Oil)

American Steam Gauge & Valve Mfg. Co., 208-220 Cam-
den St., Boston, Mass.
Burt Mfg. Co., Akron, Ohio.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co., New York & Chicago.
National Valve & Mfg. Co., Pittsburg, Pa.

Filters (Rate-Controllers)

Builders Iron Foundry, Providence, R. I.
Pittsburg Filter Mfg. Co., Pittsburg, Pa.
New York Continental Jewell Filtration Co., 15 Broad
St., New York.
Norwood Engineering Co., Florence, Mass.
Simplex Valve & Meter Co., Philadelphia, Pa.

Filters (Water)

Blaisdell Filtration Co., Real Estate Trust Bldg., Phila-
delphia, Pa.
Booth Co., L. M., 133 Liberty St., New York.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Jewell Export Filter Co., Providence, R. I.
Ley & Co., Fred T., 29 Broadway, New York.
Manitowoc Boiler Works Co., Manitowoc, Wis.
New York Continental Jewell Filtration Co., 15 Broad
St., New York.
Nichols, E. M., Philadelphia, Pa.
Norwood Engineering Co., Florence, Mass.
Pittsburg Filter Mfg. Co., Pittsburg, Pa.
Roberts Filter Mfg. Co., Philadelphia, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.
Simplex Valve & Meter Co., Philadelphia, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.,

Filter Presses

Murray Iron Works Co., Burlington, Ia.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Platt Iron Works Co., Dayton, Ohio.

Fire Brick and Fire Clay

Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Evans & Howard Fire Brick Co., St. Louis, Mo.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Heinicke, H. R., 147 Fourth Ave., New York.
New York State Sewer Pipe Co., Rochester, N. Y.
Obermayer Co., S., Cincinnati, Ohio.
Pyro Clay Product Co., Oak Hill, Ohio.
Warner Co., Charles, Wilmington, Del.

Fire Escapes (Steel)

Berlin Construction Co., Berlin, Conn.
Burr, E. M., Champaign, Ill.
Hayward & Co., S. F., 39 Park Pl., New York.
Milliken Bros., Milliken, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave.,
Minneapolis, Minn.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
Whitehead & Kales Iron Works, Detroit, Mich.

Mention "Engineering Record" when writing.

Fire Extinguishers

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Fairbanks Co., New York & Chicago.
Hayward & Co., S. F., 39 Park Pl., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.

Fire Hose (See Hose)

Fireproof Construction

Asbestos Protected Metal Co., Canton, Mass.
Ash, John Wm., Austell, Ga.
Berger Mfg. Co., Canton, Ohio.
Buffalo Steel Co., Tonawanda, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Carey Construction Co., 211 Lenox Bldg., Cleveland, O.
Consolidated Expanded Metal Engineering Co., 1182
Broadway, New York.
Corrugated Bar Co., 1410 Bank of Commerce Bldg., St.
Louis, Mo.
Garry Iron & Steel Co., Cleveland, Ohio.
General Fireproofing Co., Youngstown, Ohio.
Johns-Manville Co., H. W., 100 William St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
National Fire Proofing Co., Pittsburg, Pa.
National Wire Cloth Co., Sandusky, Ohio.
Roebeling Construction Co., 949 B'way, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Worden-Allen Co., 115 Adams St., Chicago, Ill.

Fireproof Doors

Berger Mfg. Co., Canton, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Lupton's Sons Co., David, Allegheny Ave. & Witte St.,
Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Whitehead & Kales Iron Works, Detroit, Mich.
Wilson, J. G., Mfg. Co., New York.

Fireproof Windows

Dahlstrom Metallic Door Co., Jamestown, N. Y.
Lupton's Sons Co., David, Allegheny Ave. & Witte St.,
Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Mullins Co., W. H., Salem, Ohio.
Trussed Concrete Steel Co., Detroit, Mich.

Fireproofing Materials

American Concrete Steel Co., Newark, N. J.
Asbestos Protected Metal Co., Canton, Mass.
Berger Mfg. Co., Canton, Ohio.
Bird & Co., J. A. & W., Boston, Mass.
Clinton Wire Cloth Co., Clinton, Mass.
Corrugated Bar Co., 1410 Bank of Commerce Bldg., St.
Louis, Mo.
Evans & Howard Fire Brick Co., St. Louis, Mo.
General Fireproofing Co., Youngstown, Ohio.
Johns-Manville Co., H. W., 100 William St., New York.
National Fire Proofing Co., Pittsburg, Pa.
Trussed Concrete Steel Co., Detroit, Mich.
Warner Co., Charles, Wilmington, Del.

Mention "Engineering Record" when writing.

Fire Protection Supplies

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Fibre Conduit Co., Orangeburg, N. Y.
Hayward & Co., S. F., 39 Park Pl., New York.

Flanges

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md.
Kellogg Co., M. W., 50 Church St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
National Valve & Mfg. Co., Pittsburg, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Floor Plates

American Bridge Co., 30 Church St., New York.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Hunt Co., C. W., West New Brighton, N. Y.
Milliken Bros., Milliken, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Pittsburg Mfg. Co., Pittsburg, Pa.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Floor Stands

Exeter Machine Works., Exeter, N. H.
Pittsburg Mfg. Co., Pittsburg, Pa.
Rensselaer Mfg. Co., Troy, N. Y.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Flooring (Mastic)

American Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Standard Asphalt & Rubber Co., 205 LaSalle St., Chicago.

Flue Linings

Cannelton Sewer Pipe Co., Cannelton, Ind.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Evans & Howard Fire Brick Co., St. Louis, Mo.
Johns-Manville Co., H. W., 100 William St., New York.
Kellogg Co., M. W., 50 Church St., New York.
New York State Sewer Pipe Co., Rochester, N. Y.
Warner Co., Charles, Wilmington, Del.

Flumes

Maginnis, P., Kimball, Neb.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Platt Iron Works Co., Dayton, Ohio.

Flushtanks (See Tanks, Flush)

Fly-Wheels

Allis-Chalmers Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St., Philadelphia, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Morris Co., I. P., Philadelphia, Pa.
Murray Iron Works Co., Burlington, Iowa.
Platt Iron Works Co., Dayton, Ohio.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Mention "Engineering Record" when writing.

Forges

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.

Forgings (Steel)

Atkinson Co., Wm. H., Hudson River, at 7th St., Hoboken, N. J.
American Bridge Co., 30 Church St., New York.
American Spiral Pipe Works, Chicago, Ill.
Carnegie Steel Co., Pittsburg, Pa.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
Mitchell & Tappen, 122 Liberty St., New York.
Patterson Co., W. W., Pittsburg, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Pittsburg Mfg. Co., Pittsburg, Pa.
Prosser & Sons, Thos., 15 Gold St., New York.
Seneca Chain Co., Kent, Ohio.
Terry & Tench, New York.
Union Iron Works, Hoboken, N. J.

Forms (See Centers)

Foundations

Aberthaw Construction Co., Boston, Mass.
Carey Construction Co., 211 Lennox Bldg., Cleveland, O.
Foundation Co., 115 Broadway, New York.
Jackson, Geo. W., 754-756 Jackson Bvd., Chicago, Ill.
MacArthur Concrete Pile Co., 11 Pine St., New York.
O'Rourke Engineering & Construction Co., 345 Fifth Ave., New York.
Raymond Concrete Pile Co., New York & Chicago.
Snare & Triest, 143 Liberty St., New York.
Underpinning Co., 290 Broadway, New York.
United Paving Co., Atlantic City, N. J.
Wardwell, Frederick S., Stamford, Conn.

Foundry Equipment and Supplies

Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Goldschmidt Thermit Co., 90 West St., New York.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Obermayer Co., S., Cincinnati, Ohio.
Russel Wheel & Foundry Co., Detroit, Mich.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

Frogs and Switches (Railway)

Hough Co., W. B., Monadnock Block, Chicago.
Hunt Co., C. W., West New Brighton, N. Y.
Ingersoll-Rand Co., 11 Broadway, New York.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Peteler Car Co., Minneapolis, Minn.
U. S. Wind Engine & Pump Co., Batavia, Ill.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

Mention "Engineering Record" when writing.

Fuel Economizers

Green Fuel Economizer Co., Matteawan, N. Y.
Parker Boiler Co., Pennsylvania Bldg., Philadelphia, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Machine Co., Pittsburg.

Furnaces (Garbage and Refuse)

American Pipe & Construction Co., Philadelphia.
American Process Co., 68 William St., New York.
Baldwin, Wm. J., World Bldg., New York.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
City Wastes Disposal Co., 156 Fifth Ave., New York.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Lewis & Kitchen, 1200 Michigan Ave., Chicago, Ill.
McCoy Co., Henry J., 65-67 Dey St., New York.
Morse, W. F., 111 Broadway, New York.
Power Specialty Co., 111 Broadway, New York.
Westinghouse Machine Co., Pittsburg, Pa.

Furnaces (Lead)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Stuebner Iron Works, G. L., Foot of 12th St., L. I. City,
N. Y.
Waterworks Equipment Co., 50 Church St., New York.

Furnaces (Rivet)

Harbison-Walker Refractories Co., Pittsburg, Pa.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Pittsburg Mfg. Co., Pittsburg, Pa.

Furnaces (Smokeless)

American Ship Windlass Co., Providence, R. I.
Bryan, Wm. H., 315 Lincoln Trust Bldg., St. Louis, Mo.
Murphy Iron Works, Detroit, Mich.

Furniture and Office Fittings (Steel)

Berger Mfg. Co., Canton, Ohio.
General Fireproofing Co., Youngstown, Ohio.

Fuse

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Du Pont de Nemours Powder Co., E. I., Wilmington.
Johns-Manville Co., H. W., 100 William St., New York.
National Powder Co., 200 Fifth Ave., New York.
New York Blasting Supply Co., 11 Broadway, New York.
Sinnamahoning Powder Co., Emporium, Pa.

Garbage Crematories (See Furnace, Garbage)

Gas Compressors

Ingersoll-Rand Co., 11 Broadway, New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Platt Iron Works Co., Dayton, Ohio.

Gas Exhausters

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
De Laval Steam Turbine Co., Trenton, N. J.
Exeter Machine Works, Exeter, N. H.
Power & Mining Machinery Co., Milwaukee, Wis.
Sturtevant Co., B. F., Hyde Park, Mass.

Mention "Engineering Record" when writing.

Gas Holders

Chicago Bridge & Iron Works, Chicago, Ill.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Graver Tank Works, Wm., East Chicago, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
McNeil & Bros., James, Pittsburg, Pa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Tippett & Wood, Phillipsburg, N. J.
Treadwell Construction Co., Midland, Pa.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gas Machinery

Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sheffield Gas Power Co., Kansas City, Mo.
Westinghouse Machine Co., Pittsburg, Pa.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gas Producers

Allis-Chalmers Co., Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
Foos Gas Engine Co., Springfield, Ohio.
Harrison Engineering Co., New York.
Hush, H. J., 39-41 Cortlandt St., New York.
International Steam Pump Co., 115 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
McNeil & Bros., James, Pittsburg, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Sheffield Gas Power Co., Kansas City, Mo.
Standard Scale & Supply Co., 50-52 So. Canal St., Chicago, Ill.
Strutchers-Wells Co., Warren, Pa.
Westinghouse Machine Co., Pittsburg, Pa.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gas Scrubbers

Buffalo Forge Co., Buffalo, N. Y.
Chicago Bridge & Iron Works, Chicago, Ill.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Sheffield Gas Power Co., Kansas City, Mo.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gas Works Construction

American Pipe & Construction Co., 112 N Broad St., Phila., Pa.
Graver Tank Works, Wm., East Chicago, Ind.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
White & Co., J. G., 43-49 Exchange Pl., New York.
Whitehead Kales Iron Works, Detroit, Mich.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Mention "Engineering Record" when writing.

Gaskets

Boston Belting Co., Boston, Mass.
Jenkins Bros., New York.
Johns-Manville Co., H. W., 100 William St., New York.
Kellogg Co., M. W., 50 Church St., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
Power Specialty Co., 111 Broadway, New York.
Revere Rubber Co., Boston, Mass.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Gaskets (Copper)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Kellogg Co., M. W., 50 Church St., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Gates and Valves

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Chapman Valve Mfg. Co., Indian Orchard, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Coffin Valve Co. Neponset, Boston, Mass.
Coldwell-Wilcox Co., Newburgh, N. Y.
Fairbanks Co., New York & Chicago.
Fox & Co., John, 253 Broadway, New York.
Jenkins Bros., New York.
National Valve & Mfg. Co., Pittsburg, Pa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Pittsburg Mfg. Co., Pittsburg, Pa.
Powell Co., Wm., Cincinnati, Ohio.
Seagrave, F. S., 89 Smith Ave., Detroit, Mich.
Smith, A. P., Mfg. Co., Passaic Ave., Newark, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Waterworks Equipment Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Gates (Iron Entrance)

Anchor Post & Iron Works, 15 Church St., New York.
Belmont Iron Works, Philadelphia, Pa.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Milliken Bros., Milliken, N. Y.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Gates (Ore Bin)

Insley Mfg. Co., Indianapolis, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
Power & Mining Machinery Co., Milwaukee, Wis.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Gates, Sluice, (See Sluice Gates)

Gauges (Loss of Head and Rate of Flow)

Builders' Iron Foundry, Providence, R. I.
Coldwell-Wilcox Co., Newburgh, N. Y.
Simplex Valve & Meter Co., Philadelphia, Pa.

Gauges, Steam, (See Steam Specialties)

Gauges (Track)

Fairbanks, Morse & Co., Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 N. 4th St., St. Louis, Mo.

Mention "Engineering Record" when writing.

Gears and Pinions

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Cresson Co., Geo. V., Allegheny Ave., west of 17th St.,
Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
Lea Equipment Co., 90 West St., New York.
Maine Electric Co., Portland, Me.
Platt Iron Works Co., Dayton, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor Iron & Steel Co., High Bridge, N. J.
Vulcan Iron Works, Chicago, Ill.
Webster Mfg. Co., 2410 W. 15th St., Chicago, Ill.

Generators (Electric)

American Blower Co., Detroit, Mich.
Burke Electric Co., Erie, Pa.
De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Maine Electric Co., Portland, Me.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Mietz, August, 128-138 Mott St., New York.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
U. S. Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wickes Bros., 90 West St., New York.

Giants, Hydraulic

American Spiral Pipe Works, Chicago, Ill.

Governors (Pump)

Foster Engineering Co., Newark, N. J.

Governors (Water-Wheel)

Allis-Chalmers Co., Milwaukee, Wis.
Morris Co., I. P., Philadelphia, Pa.

Graders and Scrapers, Earth (See Road Machinery)

Grain Elevators and Storage Tanks

Conveying Weigher Co., 92 West St., New York.
Graver Tank Works, Wm., East Chicago, Ind.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Grain Elevator Builders

Conveying Weigher Co., 92 West St., New York.
Hennebique Construction Co., 1170 B'way, New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.

Granite

Rockport Granite Co., Rockport, Mass.

Graphite

Dixon Crucible Co., Jos., Jersey City, N. J.
National Paint Works, 100 William St., New York.
Obermayer Co., S., Cincinnati, Ohio.

Grate Bars

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Belmont Iron Works, Phila., Pa.
Buffalo Steel Co., Tonawanda, N. Y.

Mention "Engineering Record" when writing.

Burr, E. M., Champaign, Ill.
 Conveying Weigher Co., 92 West St., New York.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Fernyak & Stavenik Machine Co., Mansfield, Ohio.
 Flory Mfg. Co., S., Bangor, Pa.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Leader Foundry & Machine Co., Quincy, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Milliken Bros., Milliken, N. Y.
 Phoenix Iron Works Co., Meadville, Pa.
 Pittsburg Mfg. Co., Pittsburg, Pa.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Smith & Son, Samuel, Paterson, N. J.
 Vulcan Iron Works, Chicago, Ill.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Grates

Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Barrett Mfg. Co., 17 Battery Pl., N. Y.
 Burr, E. M., Champaign, Ill.
 Green Engineering Co., Chicago, Ill.
 Lake Erie Engineering Works, Buffalo, N. Y.
 Phoenix Iron Works Co., Meadville, Pa.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Gravel Roofing (See Roofing, Gravel)

Gravity Incline Machines

Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 New York Cableway & Engineering Co., 2 Rector St., New York.

Greases (See Lubricants)

Grinding and Mixing Machinery

Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Ia.
 Kent Mill Co., 170 Broadway, New York.
 Lehigh Car Wheel & Axle Works, Catasauqua, Pa.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Prosser & Sons, Thos., 15 Gold St., New York.
 Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Hammers

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Channon Co., H., Chicago, Ill.
 Fairbanks Co., New York & Chicago.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Wickes Bros., 90 West St., New York.

Hand Cars (See Cars, Hand and Push)

Hangers (Joist)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Milliken Bros., Milliken, N. Y.
 Platt Iron Works Co., Dayton, Ohio.
 Pittsburg Mfg. Co., Pittsburg, Pa.

Heads (Flanged and Dished Boiler)

Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Graver Tank Works, Wm., East Chicago, Ind.
 Lake Erie Engineering Works, Buffalo, N. Y.

Mention "Engineering Record" when writing.

Heaters (Air)

Green Fuel Economizer Co., Matteawan, N. Y.
Harrison Engineering Co., New York.
Power Specialty Co., 111 Broadway, New York.
Warner Co., Charles, Wilmington, Del.

Heaters (Electric)

General Electric Co., Schenectady, N. Y.
Johns-Manville Co., H. W., 100 William St., New York.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Heaters, Feed - Water (See Feed - Water Heaters)

Heating and Ventilating Apparatus

American Blower Co., Detroit, Mich.
American District Steam Co., Lockport, N. Y.
American Radiator Co., New York & Chicago.
Baldwin, Wm. J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Harrison Engineering Co., New York.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Hoist and Grab Hooks

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Union Iron Works, Hoboken, N. J.

Hoisting Rope (See Rope, Manila and Wire)

Hoists (Chain and Rope)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Broderick & Bascom Rope Co., St. Louis, Mo.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co., H., Chicago, Ill.
Chisolm & Moore Mfg. Co., Cleveland, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dake Engine Co., Grand Haven, Mich.
Fairbanks Co., New York & Chicago.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Obermayer Co., S., Cincinnati, Ohio.

Hoists (Electric)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Browning Mfg. Co., Cleveland, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Channon Co., H., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.

Mention "Engineering Record" when writing.

Ellicott Machine Co., Bush & Severn Sts., Baltimore, Md
 Euclid Crane & Hoist Co., Euclid, Ohio.
 Fairbanks, Morse & Co., Chicago, Ill.
 Flory Mfg. Co., S., Bangor, Pa.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 General Electric Co., Schenectady, N. Y.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Hunt Co., C. W., West New Brighton, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old
 Colony Bldg., Chicago, Ill.
 Lidgerwood Mfg. Co., 96 Liberty St., New York.
 Maine Electric Co., Portland, Me.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Mead-Morrison Mfg. Co., Cambridge, Mass.
 Monighan Machine Co., 2016-2030 Carroll Ave., Chicago.
 U. S. Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Vulcan Iron Works, Wilkes-Barre, Pa.
 Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
 Williamson Bros. Co., Aramingo Ave. & Cumberland St.,
 Philadelphia, Pa.

Hoists (Gasoline)

Abenaque Machine Works, Westminster Sta., Vt.
 Barron & Cole Co., 127 Franklin St., New York.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Builders' Material Supply Co., 301-335 Scarritt Bldg.,
 Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Fairbanks, Morse & Co., Chicago, Ill.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 Inter-State Equipment & Engineering Co., 1775 Old
 Colony Bldg., Chicago, Ill.
 Koehring Machine Co., Milwaukee, Wis.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Sheffield Gas Power Co., Kansas City, Mo.
 Standard Scale & Supply Co., Chicago, Ill.
 Williamson Bros. Co., Aramingo Ave. & Cumberland St.,
 Philadelphia, Pa.

Hoists (Hand)

Allis-Chalmers Co., Milwaukee, Wis.
 American Hoist & Derrick Co., St. Paul, Minn.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Channon Co., H., Chicago, Ill.
 Chisholm & Moore Mfg. Co., Cleveland, Ohio.
 Cleveland Crane & Engineering Co., Wickliffe, Ohio.
 Coffin Valve Co., Neponset, Boston, Mass.
 Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
 Inter-State Equipment & Engineering Co., 1775 Old
 Colony Bldg., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Reedy Co., H. J., Cincinnati, Ohio.
 Stephens-Adamson Mfg. Co., Aurora, Ill.

Hoists (Head Gate)

Coldwell-Wilcox Co., Newburgh, N. Y.
 Coffin Valve Co., Neponset, Boston, Mass.
 Inter-State Equipment & Engineering Co., 1775 Old
 Colony Bldg., Chicago, Ill.

Hoists (Pneumatic)

Channon Co., H., Chicago, Ill.
 Dake Engine Co., Grand Haven, Mich.

Mention "Engineering Record" when writing.

Independent Pneumatic Tool Co., 1307 Michigan Ave.,
Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.

Hoists (Steam)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Barron & Cole Co., 127 Franklin St., New York.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Builders' Material & Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Foote Concrete Machinery Co., 184 La Salle St., Chi-
cago, Ill.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co. 1775 Old Col-
ony Bldg., Chicago, Ill.
Koehring Machine Co., Milwaukee, Wis.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Marine Metal & Supply Co., 167 South St., New York.
McCoy Co., Henry J., 65-67 Dey St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Mead-Morrison Mfg. Co., Cambridge, Mass.
Ransome Concrete Machinery Co., Dunellen, N. J.
Reedy Co., H. J., Cincinnati, Ohio.
Troy Public Works Co., Utica, N. Y.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland,
Ohio.
Williamson Bros. Co., Aramingo & Cumberland Aves.,
Philadelphia, Pa.

Hooks (Wire Rope)

American Steel & Wire Co., 115 Adams St., Chicago, Ill.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Broderick & Bascom Rope Co., St. Louis, Mo.
Brown Hoisting Machinery Co., Cleveland, Ohio.
Channon Co., H., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Leschen & Sons Rope Co., St. Louis, Mo.
Patterson Co., W. W., Pittsburg, Pa.
Roebeling's Sons Co., Jno. A., Trenton, N. J.

Hose

American Metal Hose Co., New York.
Boston Belting Co., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Conveying Weigher Co. 92 West St., New York.
Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
Fairbanks Co., New York & Chicago.
Goodrich Co., B. F., Akron, Ohio.
Hayward & Co., S. F., 39 Park Pl., New York.
Independent Pneumatic Tool Co., 1307 Michigan Ave.,
Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.

Mention "Engineering Record" when writing.

Marine Metal & Supply Co., 167 South St., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blasting Supply Co., 11 Broadway, New York.
Revere Rubber Co., Boston, Mass.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Wood Drill Works, Paterson, N. J.

Hose Attachments

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Hayward & Co., S. F., 39 Park Pl., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
Revere Rubber Co., Boston, Mass.

Hose Couplings

Allis-Chalmers Co., Milwaukee, Wis.
American Injector Co., Detroit, Mich.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Edson Mfg. Co. 257 Atlantic Ave., Boston, Mass.
Fairbanks Co. New York & Chicago.
Hayward & Co., S. F., 39 Park Pl., New York.
Independent Pneumatic Tool Co., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blasting Supply Co., 11 Broadway, New York.
Powell Co., Wm. Cincinnati, Ohio.
Revere Rubber Co., Boston, Mass.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Wood Drill Works, Paterson, N. J.

Hose (Protected)

American Metal Hose Co., New York.
Boston Belting Co., Boston, Mass.
Goodrich Co., B. F., Akron, Ohio.
Ingersoll-Rand Co., 11 Broadway, New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blasting Supply Co., 11 Broadway, New York.
Revere Rubber Co., Boston, Mass.

Hose Racks

Boston Belting Co., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co. New York & Chicago.
Hayward & Co., S. F., 39 Park Pl., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
Revere Rubber Co., Boston, Mass.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Hydrants

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Fox & Co., John, 253 Broadway, New York.
Norwood Engineering Co., Florence, Mass.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Pittsburg Mfg. Co., Pittsburg, Pa.
Rensselaer Mfg. Co., Troy, N. Y.
Seagrave F. S., 89 South Ave., Detroit, Mich.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Water Works Equipment Co. 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Hydrating Lime Machinery

Kritzer Co., 115 Adams St., Chicago, Ill.

Hydraulic Leather Packings

Channon Co., H., Chicago, Ill.
Dudgeon, Richard, 24 Columbia St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Mention "Engineering Record" when writing.

Hydraulic Machinery

Watson-Stillman Co., 58 Church St., New York.

Hydraulic Rams

Deming Co., Salem, Ohio.

Power Specialty Co., 111 Broadway, N. Y.

Ice and Refrigerating Machinery

Coldwell-Wilcox Co., Newburgh, N. Y.

Sheffield Gas Power Co., Kansas City, Mo.

Incline Cableway Engines (See Engines Incline Cableway)

Indicator Posts

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.

Fairbanks Co., New York & Chicago.

Pittsburg Mfg. Co., Pittsburg, Pa.

Rensselaer Mfg. Co., Troy, N. Y.

Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.

Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Induced Draft Equipment

American Blower Co., Detroit, Mich.

Buffalo Forge Co., Buffalo, N. Y.

Exeter Machine Works, Exeter, N. H.

Green Fuel Economizer Co., Matteawan, N. Y.

Lake Erie Engineering Works, Buffalo, N. Y.

New York Blower Co., Chicago, Ill.

Sturtevant Co., B. F., Hyde Park, Mass.

Injectors

American Injector Co., Detroit, Mich.

Channon Co., H., Chicago, Ill.

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.

Fairbanks Co., New York & Chicago.

Jenkins Bros., New York.

McDowell & Co., Grant & Western Aves., Allegheny, Pa.

Powell Co., Wm., Cincinnati, Ohio.

Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Inspection of Materials

Conard, Wm. R., 322 High St., Burlington, N. J.

Dow & Smith, 24 East 21st St., New York.

Fidelity Engineering & Inspecting Co., 30 Church St., New York.

Foundry Eng'ng. & Inspection Bureau, 78 Dwight St., Springfield, Mass.

Gulick-Henderson Co., Manhattan Bldg, Chicago.

Hallett, Nelson A., 1 Ashburton Pl., Boston, Mass.

Hunt & Co., Robt. W., Monongahela Bank Bldg., Pittsburg, Pa.

Lehigh Valley Testing Laboratory, Allentown, Pa.

Instruments, Engineering, Surveying and Mathematical (See Engineers' and Surveyors' Instruments and Supplies)

Insulating Materials

Bird & Co., J. A. & W., Boston, Mass.

General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Insurance

Contractors & Builders Insurance Agency, Inc., Richmond, Va.

Ritch, W. T., 1123 Broadway, New York.

Iron (Corrugated)

American Rolling Mill Co., Middleton, Ohio.

Asbestos Protected Metal Co., Canton, Mass.

Mention "Engineering Record" when writing.

Berger Mfg. Co., Canton, Ohio.
 Berlin Construction Co., Berlin, Conn.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Garry Iron & Steel Co., Cleveland, Ohio.
 Inland Steel Co., Chicago, Ill.
 Kratzer & Co., W. N., Pittsburg, Pa.
 Milliken Bros., Milliken, N. Y.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Phila., Pa.

Iron Fence and Railings (See Fence and Railing)

Iron Sheet (See Also Sheets, Iron and Steel)

Belmont Iron Works, Philadelphia, Pa.
 Graver Tank Works, Wm., East Chicago, Ind.
 Inland Steel Co., Chicago, Ill.
 Kratzer & Co., W. N., Pittsburg, Pa.
 Milliken Bros., Milliken, N. Y.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Phila., Pa.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Whitehead & Kales Iron Works, Detroit, Mich.

Ironwork (Architectural and Ornamental)

Anchor Post Iron Works, 15 Church St., New York.
 Berger Mfg. Co., Canton, Ohio.
 Berlin Construction Co., Berlin, Conn.
 Boston Bridge Works, 47 Winter St., Boston, Mass.
 Brown-Ketcham Iron Works, Indianapolis, Ind.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Burr, E. M., Champaign, Ill.
 Carnegie Steel Co., Pittsburg, Pa.
 Central States Bridge Co., Indianapolis, Ind.
 Champion Bridge Co., Wilmington, Ohio.
 Chicago Bridge & Iron Works, Chicago, Ill.
 Clinton Bridge & Iron Works, Clinton, Iowa.
 Des Moines Bridge & Iron Co., Des Moines, Iowa.
 Hudson Structural Steel Co., 136th St. & So. Boulevard, New York.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chicago, Ill.
 Leader Foundry & Machine Co., Quincy, Ill.
 Milliken Bros., Milliken, N. Y.
 Milwaukee Bridge Co., Milwaukee, Wis.
 Minneapolis Steel & Machinery Co., Minneapolis, Minn.
 Mullins Co., W. H., Salem, Ohio.
 Murray Iron Works Co., Burlington, Iowa.
 Noelke Richards Iron Works, Indianapolis, Ind.
 Oregonia Bridge Co., Lebanon, Ohio.
 Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Russell Wheel & Foundry Co., Detroit, Mich.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia, Pa.
 Steel Roof Truss Co., 618 New Bank of Commerce Bldg. St. Louis, Mo.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C. R. R., Detroit, Mich.

Mention "Engineering Record" when writing.

Wisconsin Bridge & Iron Co., 605 Colby-Abbot Bldg.,
Milwaukee, Wis.
Worden-Allen Co., 115 Adams St., Chicago, Ill.

Irrigation

Allis-Chalmers Co., Milwaukee, Wis.
American Engineering & Construction Co., 789-791-793
Drexel Bldg., Philadelphia, Pa.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Austin Drainage Excavator Co., F. C., Railway Ex-
change, Chicago.
Excelsior Wooden Pipe Co., 916 Balboa Bldg., San
Francisco, Cal.
Marion Steam Shovel Co., Marion, Ohio.
White & Co., J. G., 43-49 Exchange Pl., New York.

Irrigation Supplies

Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Barron & Cole Co., 127 Franklin St., New York.
De Laval Steam Turbine Co., Trenton, N. J.
Fairbanks, Morse & Co., Chicago, Ill.
Lackawanna Steel Co., 2 Rector St., New York.
Marine Metal & Supply Co., 167 South St., New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Pittsburg Mfg. Co., Pittsburg, Pa.
Portland Wood Pipe Co., Portland, Ore.
Powell Co., Wm., Cincinnati, Ohio.
Pulsometer Steam Pump Co., 16 Battery Pl., New York.
Sheffield Gas Power Co., Kansas City, Mo.

Jacks (Hydraulic)

Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dudgeon, Richard, 24 Columbia St., New York.
Duff Mfg. Co., Pittsburg, Pa.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Parker, F. I., Pennsylvania Bldg., Philadelphia, Pa.
Watson-Stillman Co., 58 Church St., New York.

Jacks (Pneumatic)

Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.

Jacks (Screw and Lever)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Chicago Scale Co., 1021 Jackson Bvd. Chicago, Ill.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Duff Mfg. Co., Pittsburg, Pa.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
McCoy Co., Henry J., 65 and 67 Dey St., New York.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Jacks (Track)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Duff Mfg. Co., Pittsburg, Pa.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.

Mention "Engineering Record" when writing.

Parker, F. J., Pennsylvania Bldg., Philadelphia Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Joints (Expansion, Copper)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Kellogg Co., M. W., 50 Church St., New York.
National Valve & Mfg. Co., Pittsburg, Pa.

Joints (Flexible)

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Coldwell-Wilcox Co., Newburg, N. Y.
Fairbanks Co., New York & Chicago.
New York Blasting & Supply Co., 11 Broadway, N. Y.
Walker Mfg. Co., Fenton, Mich.

Kettles (Melting)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Channon Co., H., Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Dupont de Nemours Powder Co., E. I., Wilmington, Del.
Fairbanks Co., New York & Chicago.
Iroquois Iron Works, Buffalo, N. Y.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
McNeil & Bros., James, Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Stuebner Iron Works, G. L., Ft. 12th St., L. I. City,
N. Y.
Vulcan Iron Works, Chicago, Ill.

Kettles (Steam Jacket)

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Iroquois Iron Works, Buffalo, N. Y.
Murray Iron Works Co., Burlington, Iowa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Smith & Son Co., Samuel, Paterson, N. J.
Petroleum Iron Works Co., Sharon, Pa.
Struthers-Wells Co., Warren, Pa.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Kilns

Manitowoc Boiler Works Co., Manitowoc, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Vulcan Iron Works, Wilkes Barre, Pa.

Kilns (Cement)

Allis-Chalmers Co., Milwaukee, Wis.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Vulcan Iron Works, Wilkes Barre, Pa.

Kilns (Drying)

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Cummer & Sons Co., F. D., 413 Arcade, Cleveland, Ohio.
Graver Tank Works, Wm., East Chicago, Ind.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Vulcan Iron Works, Wilkes Barre, Pa.

Mention "Engineering Record" when writing.

Kilns (Lime)

Allis-Chalmers Co., Milwaukee, Wis.
Graver Tank Works, Wm., East Chicago, Ind.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Vulcan Iron Works, Wilkes Barre, Pa.

Ladles (Foundry)

Cockburn Barrow & Mach. Co., 30 Church St., New York.
Manitowoc Boiler Works Co., Manitowoc, Wis.
McNeil & Bros., James, Pittsburg, Pa.
Obermayer Co., S., Cincinnati, Ohio.

Ladles (Foundry Car)

Hunt Co., C. W., West New Brighton, N. Y.
Obermayer Co., S., Cincinnati, Ohio.
Russel Wheel & Foundry Co., Detroit, Mich.
Sharon Boiler Works, Florida St., Sharon, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Ladles (Steel)

Fairbanks Co., New York & Chicago.
McNeil & Bros., Jas., Pittsburg, Pa.
Mitchell & Tappen, 122 Liberty St., New York.
Obermayer Co., S., Cincinnati, Ohio.
Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Union Iron Works, Hoboken, N. J.

Lamp Posts

Belmont Iron Works, Eddystone, Pa.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fox & Co., John, 253 Broadway, New York.
Leader Foundry & Machine Co., Quincy, Ill.
Milliken Bros., Milliken, N. Y.
Minneapolis Steel & Machine Co., Minneapolis, Minn.
Schreiber & Sons Co., L., Cincinnati, Ohio.

Lamps (Arc and Incandescence)

Cooper Hewitt Elec. Co., 220 West 29th St., New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
General Electric Co., Schenectady, N. Y.
Maine Electric Co., Portland, Me.
Milliken Bros., Milliken, N. Y.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Lath (Metal)

American Rolling Mill Co., Middletown, Ohio.
Berger Mfg. Co., Canton, Ohio.
Clinton Wire Cloth Co., Clinton, Mass.
Corrugated Bar Co., St. Louis, Mo.
Garry Iron & Steel Co., Cleveland, Ohio.
General Fireproofing Co., Youngstown, Ohio.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Roebbling Construction Co., 949 Broadway, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Warner Co., Charles, Wilmington, Del.

Leadite (See Also Packing, Metallic)

Leadite Co., Land Title Bldg., Phila., Pa.
Water Works Equipment Co., 50 Church St., New York.

Lead-Wool (See Also Packing, Metallic)

Water Works Equipment Co., 50 Church St., New York.

Levels

Architects' & Engineers' Supply Co., Kansas City, Mo.
Berger & Sons, C. L., Boston, Mass.

Mention "Engineering Record" when writing.

Fairbanks Co., New York & Chicago.
Geier & Bluhm, Troy, N. Y.
Iszard-Warren Co., 136 N. 12th St., Philadelphia, Pa.
Keuffel & Esser Co., Hoboken, N. J.
Kolesch & Co., 138 Fulton St., New York.

Levels (Track)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.

Lifting Magnets

Brown Hoisting Machinery Co., Cleveland, Ohio.
Obermayer Co., S., Cincinnati, Ohio.

Lighthouse Foundations

Foundation Co., 115 Broadway, New York.
MacArthur Concrete Pile Co., 11 Pine St., New York.
Wardwell, Frederick S., Stamford, Conn.

Lights (Contractors')

McCoy Co., Henry J., 65 & 67 Dey St., New York.
Milburn Co., Alexander, Baltimore, Md.
Wells Light Mfg. Co., 154 Chestnut Ave., Jersey City.

Lights (Sidewalks and Vault)

American Luxfer Prism Co., 42 Madison St., Chicago.
Belmont Iron Works, Philadelphia, Pa.
Berger Mfg. Co., Canton, Ohio.
Builders Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Milliken Bros., Milliken, N. Y.
Minwax Co., 1123 Broadway, New York.
National Ventilating Co., 337 East 26th St., New York.
Russel Wheel & Foundry Co., Detroit, Mich.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Detroit, Mich.

Lime

Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Warner Co., Charles., Wilmington, Del.

Lime (Hydrated)

Warner Co., Charles, Wilmington, Del.

Lime Hydrating Plants

Kritzer Co., 115 Adams St., Chicago, Ill.

Lockers

Berger Mfg. Co., Canton, Ohio.
Clinton Wire Cloth Co., Clinton, Mass.

Locomotives (Compressed Air)

Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Parsons Co., G. T., Newton, Iowa.
Porter Co., H. K., Pittsburg, Pa.
Vulcan Iron Works, Wilkes Barre, Pa.

Locomotives (Electric)

American Locomotive Co., 30 Church St., New York.
General Electric Co., Schenectady, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Maine Electric Co., Portland, Me.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Mention "Engineering Record" when writing.

Locomotives (Gasoline)

Abenague Machine Works, Westminster Station, Vt.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Lima Locomotive & Machine Co., Lima, Ohio.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Locomotives (Industrial and Light)

American Locomotive Co., 30 Church St., New York.
Atlantic Equipment Co., 30 Church St., New York.
Davenport Locomotive Works, Davenport, Iowa.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Lima Locomotive & Machine Co., Lima, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Porter Co., H. K., Pittsburg, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Vulcan Iron Works, Wilkes-Barre, Pa.
Westinghouse Machine Co., Pittsburg, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Locomotives (Steam)

American Locomotive Co., 30 Church St., New York.
Atlantic Equipment Co., 30 Church St., New York.
Davenport Locomotive Works, Davenport, Iowa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Lima Locomotive & Machine Co., Lima, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Porter Co., H. K., Pittsburg, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Vulcan Iron Works, Wilkes Barre, Pa.
Wickes Bros., 90 West St., New York.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Locomotives, Traction (See Also Engines, Traction)

Brown Hoisting Machinery Co., Cleveland, Ohio.
Buffalo Pitts Co., Buffalo, N. Y.
Huber Mfg. Co., Marion, Ohio.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Logging Outfits

Abenague Machine Works, Westminster Station, Vt.
Channon Co., H., Chicago, Ill.
Flory Mfg. Co., S., Bangor, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
New York Cableway & Engineering Co., 2 Rector St.,
New York.
Parsons Co., G. T., Newton, Iowa.

Mention "Engineering Record" when writing.

Russel Wheel & Foundry Co., Detroit, Mich.
Southern Iron & Equipment Co., Atlanta, Ga.
Williamson Bros. Co., Aramingo Ave. & Cumberland St.,
Philadelphia, Pa.

Log Loaders

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Fairbanks, Morse & Co., Chicago, Ill.
Flory Mfg. Co., S., Bangor, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
Maine Electric Co., Portland, Me.
Marion Steam Shovel Co., Marion, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Russel Wheel & Foundry Co., Detroit, Mich.

Lubricants

Broderick & Bascom Rope Co., St. Louis, Mo.
Dixon Crucible Co., Jos., Jersey City, N. J.
Exeter Machine Works, Exeter, N. H.
Indian Refining Co., First Nat'l. Bank Bldg., Cincinnati, Ohio.
Lunkenheimer Co., Cincinnati, Ohio.
New York Blasting & Supply Co., 11 Broadway, N. Y.
Obermayer & Co., S., Cincinnati, Ohio.
Texas Co., 17 Battery Pl., New York.

Lubricators

Exeter Machine Works, Exeter, N. H.
Powell Co., Wm., Cincinnati, Ohio.

Lumber (Creosoted)

American Creosote Works, New Orleans, La.
Gulfport Creosoting Co., Gulfport, Miss.
Southern Wood Preserving Co., Atlanta, Ga.
Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.

Machine Tools

Fairbanks Co., New York & Chicago.
Wickes Bros., 90 West St., New York.
Wiener Machinery Co., 50 Church St., New York.

Machinery, Second-Hand (See Second-Hand Machinery and Supplies)

Machinists and Founders

Allis-Chalmers Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St.,
Philadelphia, Pa.
Ellicott Machine Co., Bush & Severn Sts., Baltimore.
Lake Erie Engineering Works, Buffalo, N. Y.
Leader Foundry & Machine Co., Quincy, Ill.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Morris Co., I. P., Philadelphia, Pa.
Norwood Engineering Co., Florence, Mass.
Pittsburg Mfg. Co., Pittsburg, Pa.
Robins Conveying Belt Co., 13 Park Row, New York.
Russel Wheel & Foundry Co., Detroit, Mich.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Walker Mfg. Co., Fenton, Mich.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.
Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Machinists' Tools

Channon Co., H., Chicago, Ill.

Mention "Engineering Record" when writing.

Fairbanks Co., New York & Chicago.
Lufkin Rule Co., Saginaw, Mich.
Wiener Machinery Co., 50 Church St., New York.

Manganese Steel

Manganese Steel Rail Co., 30 Church St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Taylor Iron & Steel Co., High Bridge, N. J.

Manhole Covers

American District Steam Co., Lockport, N. Y.
Belmont Iron Works, Philadelphia, Pa.
Burr, M. E., Champaign, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Fox & Co., John, 253 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Milliken Bros., Milliken, N. Y.
Mitchell & Tappen, 122 Liberty St., New York.
Murray Iron Works, Burlington, Iowa.
Russel Wheel & Foundry Co., Detroit, Mich.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Sessions Foundry Co., Bristol, Conn.
Vulcan Iron Works, Chicago, Ill.
Whitehead & Kales Iron Works, Detroit, Mich.

Marble (Workers and Dealers)

Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.

Mauls

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Terry & Tench, New York.

Mechanical Draft Plant

American Blower Co., Detroit, Mich.
American Ship Windlass Co., Providence, R. I.
Baldwin, Wm. J., World Bldg., New York.
Buffalo Forge Co., Buffalo, N. Y.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
Kidde, Walter, 140 Cedar St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
New York Blower Co., Chicago, Ill.
Sturtevant Co., B. F., Hyde Park, Mass.
Wing Mfg. Co., L. J., 90 West St., New York.

Mechanical Rubber Goods

Mulconroy Co., 722 Arch St., Philadelphia, Pa.

Metal Shingles and Tile

Berger Mfg. Co., Canton, Ohio.
Mullins Co., W. H., Salem, Ohio.

Metallic Window Frame and Sash

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Berger Mfg. Co., Canton, Ohio.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Luptons' Sons Co., David, Philadelphia, Pa.
Milliken Brothers, Milliken, N. Y.
Mullins Co., W. H., Salem, Ohio.

Metals (Reinforcing)

American System of Reinforcing, 189 La Salle St., Chicago, Ill.

Mention "Engineering Record" when writing.

Brown Hoisting Machinery Co., Cleveland, Ohio.
Clinton Wire Cloth Co., Clinton, Mass.
Concrete-Steel Engineering Co., Park Row Bldg., N. Y.
Corrugated Bar Co., St. Louis, Mo.
General Fireproofing Co., Youngstown, Ohio.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Roebling Construction Co., 949 Broadway, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Warner Co., Charles, Wilmington, Del.

Meter Box Covers

Buffalo Meter Co., 290 Terrace, Buffalo, N. Y.
Builders' Iron Foundry, Providence, R. I.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
McWane Pipe Works, 220 Broadway, New York.
Pittsburg Meter Co., East Pittsburg, Pa.

Meter Provers

Pittsburg Meter Co., East Pittsburg, Pa.

Meters (Water, Oil and Gas)

Buffalo Meter Co., 290 Terrace, Buffalo, N. Y.
Builders' Iron Foundry, Providence, R. I.
Builders Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
National Meter Co., 84 Chambers St., New York.
Neptune Meter Co., 90 West St., New York.
Pittsburg Meter Co., East Pittsburg, Pa.
Simplex Valve & Meter Co., Phila., Pa.
Worthington, Henry R., 115 Broadway, New York.

Mills, Sugar (See Sugar Mill Machinery)

Mining Machinery

Allis-Chalmers Co., Milwaukee, Wis.
American Process Co., 68 William St., New York.
Atlas Dryer Co., Cleveland, Ohio.
Austin-Western Co., Ltd., Chicago, Ill.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave. West of 17th St.,
Phila., Pa.
Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Dow Pumping Engine Co., Geo. E., 179 First St., San
Francisco, Cal.
Ingersoll-Rand Co., 11 Broadway, New York.
International Steam Pump Co., 115 Broadway, New York.
Keay's Cable Grip Co., 97 Liberty St., New York.
Kent Mill Co., 170 Broadway, New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Maine Electric Co., Portland, Me.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
McKiernan Drill Co., 115 Broadway, New York.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Power & Mining Machinery Co., Milwaukee, Wis.
Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
Prosser & Sons, Thos., 15 Gold St., New York.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison St.,
Chicago, Ill.
Sheffield Gas Power Co., Kansas City, Mo.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Vulcan Iron Works, Wilkes Barre, Pa.

Mention "Engineering Record" when writing.

Mining Shafts

Carnegie Steel Co., Pittsburg, Pa.
Cresson Co., Geo., Philadelphia, Pa.
Foundation Co., 115 Broadway, New York.

Mixers (Asphalt)

Bartlett & Snow Co., C. O., Cleveland, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cummer & Son Co., F. D., 413 Arcade, Cleveland, Ohio.
Erie Machine Shops, 13th & Peach Sts., Erie, Pa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Iroquois Iron Works, Buffalo, N. Y.
Koehring Machine Co., Milwaukee, Wis.
McCoy & Co., Henry J., 65 & 67 Dey St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Milwaukee Concrete Mixer & Machinery Co., 283 Clinton St., Milwaukee, Wis.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.

Mixers (Cement),

Abenague Machine Works, Westminster Station, Vt.
Atlas Dryer Co., Cleveland, Ohio.
Austin Cube Mixer Co., Railway Exchange, Chicago.
Barron & Cole Co., 127 Franklin St., New York.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Chain Belt Co., Milwaukee, Wis.
Clover Leaf Equipment Co., South Bend, Ind.
Conveying Weigher Co., 92 West St., New York.
Dunning, W. D., Syracuse, N. Y.
Eureka Machine Co., Lansing, Mich.
Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Iroquois Iron Works, Buffalo, N. Y.
Koehring Machine Co., Milwaukee, Wis.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy & Co., Henry J., 65 & 67 Dey St., New York.
Milwaukee Concrete Mixer & Mach'y Co., 283 Clinton St., Milwaukee, Wis.
Municipal Engineering & Contracting Co., 607-611 Railway Exchange, Chicago, Ill.
National Mixer Co., Powers Bldg., Rochester, N. Y.
Ohio Ceramic Engineering Co., Cleveland, Ohio.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Standard Scale & Supply Co., Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.

Mixers (Concrete)

Abenague Machine Works, Westminster Station, Vt.
Acme Equipment & Engineering Co., Cleveland, Ohio.
Austin Cube Mixer Co., Railway Exchange, Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Bond Co., Harold L., 383-391 Atlantic Ave, Boston, Mass.
Builders' Material Supply Co., 301-335 Searritt Bldg., Kansas City, Mo.
Chain Belt Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Chicago Concrete Machinery Co., Chicago.
Clover Leaf Equipment Co., South Bend, Ind.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.

Mention "Engineering Record" when writing.

Concrete-Steel Engrg. Co., Park Row Bldg., New York.
 Contractors' Plant M'fg. Co., 129 Erie st, Buffalo, N. Y.
 Conveying Weigher Co., 92 West St., New York.
 Drake Standard Machine Works, 1023 W. Jackson Boulevard, Chicago, Ill.
 Erie Machine Shops, 13th & Peach Sts., Erie, Pa.
 Eureka Machine Co., Lansing, Mich.
 Fairbanks Co., New York & Chicago.
 Foote Concrete Machinery Co., 184 La Salle St. Chicago.
 Hadsell Engineering Co., Scranton, Pa.
 Hains Concrete Machinery Co., Washington, D. C.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Interlocking Steel Co., Cleveland, Ohio.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Koehring Machine Co., Milwaukee, Wis.
 Longenecker & Co., Chas. W., 150 Nassau St., New York.
 Marine Metal & Supply Co., 167 South St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy & Co., Henry J., 65 & 67 Dey St., New York.
 Milwaukee Concrete Mixer & Machinery Co., 283 Clinton St., Milwaukee, Wis.
 Municipal Engrg. & Contracting Co., 607-611 Ry. Exchange, Chicago, Ill.
 Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
 Ohio Ceramic Engrg. Co., Cleveland, Ohio.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
 Standard Scale & Supply Co., 50 & 52 So. Canal St., Chicago, Ill.
 Svenson-Shuman Machine Co., 602 Bessemer Bldg., Pittsburgh, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wickes Bros., 90 West St., New York.

Mixers (Mortar)

Allis-Chalmers Co., Milwaukee, Wis.
 Austin Cube Mixer Co., Railway Exchange, Chicago, Ill.
 Barron & Cole Co., 127 Franklin St., New York.
 Chain Belt Co., Milwaukee, Wis.
 Conveying Weigher Co., 92 West St., New York.
 Eureka Machine Co., Lansing, Mich.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Ia.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Milwaukee Concrete Mixer & Machinery Co., 283 Clinton St., Milwaukee, Wis.
 Monighan Machine Co., 2016 & 2030 Carroll Ave., Chicago, Ill.
 Municipal Engrg. & Contracting Co., 607-611 Railway Exchange, Chicago, Ill.
 Ohio Ceramic Engrg. Co., Cleveland, Ohio.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.

Motor Cars

Fairbanks, Morse & Co., Chicago, Ill.
 General Electric Co., Schenectady, N. Y.
 Studebaker Bros. Mfg. Co., So. Bend, Ind.

Mention "Engineering Record" when writing.

Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Motors (Compressed Air)

Dake Engine Co., Grand Haven, Mich.
Ingersoll-Rand Co., 11 Broadway, New York.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Motors (Electric)

Allis-Chalmers Co., Milwaukee, Wis.
Burke Electric Co., Erie, Pa.
D'Olier Engineering Co., 119-121 So. 11th St., Phila., Pa.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Maine Electric Co., Portland, Me.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.
Wickes Bros., 90 West St., New York.

Motors (Water and Steam)

De Laval Steam Turbine Co., Trenton, N. J.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.

Nails (Wire)

American Steel & Wire Co., 115 Adams St., Chicago, Ill.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.

Netting (Wire)

American Steel & Wire Co., 115 Adams St., Chicago, Ill.
Anchor Post Iron Works, 15 Church St., New York.
Clinton Wire Cloth Co., Clinton, Mass.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Roebbling Construction Co., 949 Broadway, New York.

Nickel Steel

Carnegie Steel Co., Pittsburg, Pa.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Prosser & Son, Thos., 15 Gold St., New York.

Nuts and Nut Locks

Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.

Oakum

American Mfg. Co., 65 Wall St., New York.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Leschen & Sons Rope Co., St. Louis, Mo.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Zelnicker Supply Co. Walter A., 406 No. Fourth St., St. Louis, Mo.

Oil Burners

Advance Pump & Compressor Co., Battle Creek, Mich.
Buffalo Pitts Co., Buffalo, N. Y.
Lunkenheimer Co., Cincinnati, Ohio.
Petroleum Iron Works Co., Sharon, Pa.

Mention "Engineering Record" when writing.

Oil Filters (See Filters, Oil)

Oil (Linseed)

Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Sterling Varnish Co., Pittsburg, Pa.

Oil Refining Plants

Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Struthers-Wells Co., Warren, Pa.

Oiling Systems

Davenport Brick & Tile Co., 226 W. 3d St., Davenport,
Iowa.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Lunkenheimer Co., Cincinnati, Ohio.
National Valve & Mfg. Co., Pittsburg, Pa.
Powell Co., Wm., Cincinnati, Ohio.

Packing

American Mfg. Co., 65 Wall St., New York.
Boston Belting Co., Boston, Mass.
Conveying Weigher Co., 92 West St., New York.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Goodrich Co., B. F., Akron, Ohio.
Jenkins Bros., New York.
Johns-Manville Co., H. W., 100 William St., New York.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
Revere Rubber Co., Boston, Mass.
Zelnicker Supply Co., Walter A., 406 No. 4th St., St.
Louis, Mo.

Packing (Leather)

Dudgeon, Richard, 24 Columbia St., New York.
Watson-Stillman Co., 58 Church St., New York.

Packing (Metallic)

Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Johns-Manville Co., H. W., 100 William St., New York.
Power Specialty Co., 111 Broadway, New York.

Packing (Water-Pipe)

American Mfg. Co., 65 Wall St., New York.
Broderick Bascom Rope Co., St. Louis, Mo.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
Revere Rubber Co., Boston, Mass.

Paints and Metal Coatings

American Paint Mfg. Co., 41-47 Hollingsworth St., Mat-
tapan, Boston, Mass.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Clinton Metallic Paint Co. Clinton, N. Y.
Dexter Bros. Co., 105 Broad St., Boston, Mass.
Dixon Crucible Co., Jos., Jersey City, N. J.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Elaterite Paint & Mfg. Co., Des Moines, Iowa.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Glidden Varnish Co., Cleveland, Ohio.
Minwax Co., 1123 Broadway, New York.
National Paint Works, 100 William St., New York.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Rinald Bros., 1146 No. Hancock St., Philadelphia, Pa.
Standard Paint Co., 100 William St., New York.
Sterling Varnish Co., Pittsburg, Pa.
Toch Bros., 320 Fifth Ave., New York.

Mention "Engineering Record" when writing.

Paints (Asphalt)

American Asphaltum Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
American Paint Mfg. Co., 41-47 Hollingsworth St., Matapan, Boston, Mass.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Bird & Co., J. A. & W., Boston, Mass.
Clinton Metallic Paint Co., Clinton, N. Y.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Glidden Varnish Co., Cleveland, Ohio.
Lunkenheimer Co., Cincinnati, Ohio.
Minwax Co., 1123 Broadway, New York.
National Paint Works, 100 William St., New York.
Standard Asphalt & Rubber Co., 205 La Salle St., Chicago, Ill.
Standard Paint Co., 100 William St., New York.
Toch Bros., 320 Fifth Ave., New York.

Paper (Drafting)

Kolesch & Co., 138 Fulton St., New York.
Mittineague Paper Co., Mittineague, Mass.
Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Paving Joint Filler

American Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
American Tar Co., Boston, Mass.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Iszard-Warren Co., 136 N. 12th St., Philadelphia, Pa.
Kettle River Quarries Co., Minneapolis, Minn.
Standard Asphalt & Rubber Co., Chicago.
Standard Oil Co., New York.
Texas Co. 17 Battery Pl., New York.

Pavements (See also Asphalt Paving)

Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Barron & Cole Co. 127 Franklin St., New York.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Indian Refining Co. First Nat'l Bank Bldg., Cincinnati.
Kettle River Quarries Co., Minneapolis, Minn.
McAvoy Vitrified Brick Co., 345 Arch St., Phila., Pa.
National Paving Brick Assn., Indianapolis, Ind.
Rockport Granite Co., Rockport, Mass.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
United Paving Co., Atlantic City, N. J.
U. S. Wood Preserving Co., 165 Broadway, N. Y.

Peat Collectors

American Process Co., 68 William St., New York.
Conveying Weigher Co., 92 West St., New York.

Penstocks

D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
Graver Tank Works, Wm., East Chicago, Ind.
Lackawanna Steel Co., 2 Rector St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Mitchell & Tappen, 122 Liberty St., New York.
Pacific Coast Pipe Co., Seattle, Wash.
Petroleum Iron Works Co., Sharon, Pa.

Mention "Engineering Record" when writing.

Platt Iron Works Co., Dayton, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Struthers-Wells Co., Warren, Pa.
Treadwell Construction Co., Midland, Pa.
U. S. Wind Engine & Pump Co., Batavia, Ill.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Perforated Metals

Allis-Chalmers Co., Milwaukee, Wis.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Pile Driving Machinery

American Hoist & Derrick Co., St. Paul, Minn. •
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Edson Mfg. Co. 257 Atlantic Ave., Boston, Mass.
Flory Mfg. Co., S., Bangor, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Ingersoll-Rand Co., 11 Broadway, New York.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Lidgerwood Mfg. Co., 96 Liberty St., New York.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
McKiernan Drill Co., 115 Broadway, New York.
Maine Electric Co., Portland, Me.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
New York Cableway & Engineering Co., 2 Rector St., New York.
Parker, F. J., Pennsylvania Bldg., Phila., Pa.
Union Iron Works, Hoboken, N. J.
Vulcan Iron Works Chicago, Ill.
Wardwell, Frederick S., Stamford, Conn.

Pile Protection

Lackawanna Steel Co., 2 Rector St., New York.
Lock Joint Pipe Co., 165 Broadway, New York.
Minwax Co., 1123 Broadway, New York.
Monks-Ripley Pile Co., 82 Beaver St., New York.

Pile Shoes

Dobbie Foundry Machine Co., Niagara Falls, N. Y.
Janney, Steinmetz & Co., Philadelphia, Pa.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Patterson Co. W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Vulcan Iron Works Chicago, Ill.

Piles (Concrete)

Carey Construction Co., 211 Lennox Bldg., Cleveland, O.
Foundation Co., 115 Broadway, New York.
Hennebique Construction Co. 1170 Broadway, New York.
MacArthur Concrete Pile Co., 11 Pine St., New York.
Monks-Ripley Pile Co., 82 Beaver St., New York.
Raymond Concrete Pile Co., New York & Chicago.

Piles (Creosoted)

American Creosoting Works, New Orleans, La.
Barber Asphalt Paving Co., Maurer, N. J.
Gulfport Creosoting Co., Gulfport, Miss.
Kettle River Quarries Co., Minneapolis, Minn.
Southern Wood Preserving Co., Atlanta, Ga.
Wyckoff Pipe & Creosoting Co., 50 Church St., New York.

Piles (Timber)

Foundation Co., 115 Broadway, New York.

Mention "Engineering Record" when writing.

Piling (Interlocking Steel)

Carnegie Steel Co., Pittsburg, Pa.
Jackson, Geo. W., 754-756 Jackson Blvd., Chicago, Ill.
Jones & Laughlin Steel Co. Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.

Pipe (Cast-Iron)

American Cast-Iron Pipe Co., Birmingham, Ala.
Builders' Iron Foundry, Providence, R. I.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Dimmick Pipe Co. Birmingham, Ala.
Donaldson Iron Co., Emaus, Lehigh Co., Pa.
Fox & Co., John, 253 Broadway, New York.
Kellogg Co. M. W., 50 Church St., New York.
Massillon Iron & Steel Co., Massillon, Ohio.
McWane Pipe Works, 220 Broadway, N. Y.
Milliken Bros., Milliken, N. Y.
Russel Wheel & Foundry Co., Detroit, Mich.
Standard Cast-Iron Pipe and Foundry Co., Bristol, Pa.
U. S. Cast-Iron Pipe & Foundry Co., New York.
Vulcan Iron Works, Wilkes-Barre, Pa.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pipe (Concrete)

American Cement Machinery Co., St. Louis, Mo.
American Pipe & Construction Co., 112 North Broad St., Philadelphia, Pa.
Ash, John Wm., Austell, Ga.
Ransome, Ernest L., 11 Broadway, New York.
Reinforced Concrete Pipe Co., Jackson, Mich.

Pipe (Galvanized Iron)

American Rolling Mill Co., Middletown, Ohio.
Berger Mfg. Co., Canton, Ohio.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Lupton's Sons Co. David, Allegheny Ave. & Witte St., Philadelphia, Pa.
Maginnis, P., Kimball, Neb.
Milliken Bros., Milliken, N. Y.
New York Blower Co., Chicago, Ill.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.

Pipe (Lead)

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.

Pipe (Lock-Bar)

East Jersey Pipe Co., 50 Church St., New York.
Gillespie Co., T. A., Westinghouse Bldg., Pittsburg, Pa.

Pipe (Reinforced Concrete)

American Cement Machinery Co., St. Louis, Mo.
Carey Construction Co., 211 Lennox Bldg., Cleveland, O.
Hennebique Construction Co., 1170 Broadway, New York.
Lock Joint Pipe Co., 165 Broadway, New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Ransome Ernest L., 11 Broadway, New York.
Reinforced Concrete Pipe Co., Jackson, Mich.
Trussed Concrete Steel Co., Detroit, Mich.

Pipe (Riveted Steel)

American Bridge Co., 30 Church St., New York.
American Spiral Pipe Works, Chicago, Ill.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Chicago Bridge & Iron Works, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Iowa.
Cockburn Barrow & Machine Co., 30 Church St., New York.

East Jersey Pipe Co., 50 Church St., New York.
Ellicott Machine Co., Bush & Severn Sts., Baltimore.
Graver Tank Works, Wm., East Chicago, Ind.
Gillespie Co., T. A., Westinghouse Bldg., Pittsburg, Pa.
Lake Erie Engineering Works, Buffalo, N. Y.
McNeil & Bros., Jas., Pittsburg, Pa.
Milliken Bros., Milliken, N. Y.
Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Smith & Son Co. Samuel, Paterson, N. J.
Struthers-Wells Co., Warren, Pa.
Treadwell Construction Co., Midland, Pa.
Tippett & Wood, Phillipsburg, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.

Pipe (Steel)

American Spiral Pipe Works, Chicago, Ill.
Chicago Bridge & Iron Works, Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cockburn Barrow & Machine Co., 30 Church St., N. Y.
Graver Tank Works, Wm., East Chicago, Ind.
Gillespie Co., T. A., Westinghouse Bldg., Pittsburg, Pa.
Kellogg Co., M. W., 50 Church St. New York.
Lake Erie Engineering Works, Buffalo, N. Y.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Marine Metal & Supply Co., 167 South St., New York.
Milliken Bros., Milliken, N. Y.
National Valve & Mfg. Co., Pittsburg, Pa.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Pipe (Vitrified Clay and Sewer)

Blackmer & Post Pipe Co., St. Louis, Mo.
Cannelton Sewer Pipe Co., Cannelton, Ind.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Davenport Brick & Tile Co., 226 W. 3d St., Davenport, Iowa.
Eastern Asphalt Supply Co., 115 Broadway, N. Y.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Evans & Howard Fire Brick Co., St. Louis, Mo.
Lock Joint Pipe Co., 165 Broadway, New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
National Fire Proofing Co., Pittsburg, Pa.
N. Y. State Sewer Pipe Co., Rochester, N. Y.
Pacific Tank & Pipe Co., 318 Market St., San Francisco, Cal.
Warner Co., Charles, Wilmington, Del.
Western Clay Products, 815 Wall St., Kansas City, Mo.

Pipe (Wood)

American District Steam Co., Lockport, N. Y.
Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
Michigan Pipe Co., Bay City, Mich.
Pacific Coast Pipe Co., Seattle, Wash.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Portland Wood Pipe Co., Portland, Ore.
Washington Pipe & Foundry Co., Tacoma, Wash.

Mention "Engineering Record" when writing.

Wyckoff & Sons Co., A., Elmira, N. Y.
Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.

Pipe (Wrought Iron)

American District Steam Co., Lockport, N. Y.
American Pipe & Construction Co., Philadelphia, Pa.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Marine Metal & Supply Co. 167 South St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Milliken Bros., Milliken, N. Y.
National Valve & Mfg. Co., Pittsburg, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
United States Equipment Co., Fisher Bldg., Chicago.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Pipe and Boiler Coverings

Clinton Metallic Paint Co., Clinton, N. Y.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Johns-Manville Co., H. W., 100 William St., New York.
Kellogg Co., M. W., 50 Church St., New York.
Michigan Pipe Co. Bay City, Mich.
Wyckoff & Sons Co., A., Elmira, N. Y.

Pipe Bends

American Cast-Iron Pipe Co., Birmingham, Ala.
Builders Iron Foundry, Providence, R. I.
East Jersey Pipe Co., 50 Church St., New York.
Kellogg Co., M. W., 50 Church St., New York.
National Pipe Bending Co., New Haven, Conn.
National Valve & Mfg. Co., Pittsburg, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Topping, Howell, 52 Church St., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Pipe-Bending Machines

Dudgeon, Richard, 24 Columbia St., New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Pipe Cutters

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Waterworks Equipment Co., 50 Church St., New York.
Wickes Bros., 90 West St., New York.

Pipe Dip

American Asphaltum & Rubber Co., Chicago, Ill.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Minwax Co., 1123 Broadway, New York.
Standard Asphalt & Rubber Co., Chicago, Ill.
Texas Co., 17 Battery Pl., New York.

Pipe Fittings

American Cast-Iron Pipe Co., Birmingham, Ala.
American Spiral Pipe Works, Chicago, Ill.
Builders' Iron Foundry, Providence, R. I.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Dimmick Pipe Co., Birmingham, Ala.
Donaldson Iron Co. Emaus, Lehigh Co., Pa.
Fox & Co., John, 253 Broadway, New York.
Marine Metal & Supply Co., 167 South St., New York.
Massillon Iron & Steel Co., Massillon, Ohio.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Milliken Bros., Milliken, N. Y.
National Valve & Mfg. Co., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Standard Cast-Iron Pipe & Foundry Co., Bristol, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Pipe Tapping Machines

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Smith Mfg. Co., A. P., Passaic Ave., Newark, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Waterworks Equipment Co., 50 Church St., New York.

Pipe-Joint Compounds

Dixon Crucible Co., Jos., Jersey City, N. J.
Johns-Manville Co., H. W., 100 William St., New York.
Minwax Co., 1123 Broadway, New York.
Obermayer Co., S., Cincinnati, Ohio.

Pipe-Joints

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
Kellogg Co., M. W., 50 Church St., New York.
National Valve & Mfg. Co., Pittsburg, Pa.

Pipe-Line Supplies

American District Steam Co., Lockport, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Fox & Co., John, 253 Broadway, New York.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
McCoy Co., Henry J., 65-67 Dey St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Powell Co., Wm., Cincinnati, Ohio.
Union Iron Works, Hoboken, N. J.

Piping Contractors

Cuozzo, Donato, Park Row Bldg., New York.
Excelsior Wooden Pipe Co., San Francisco, Cal.
Kellogg Co., M. W., 50 Church St., New York.
National Valve & Mfg. Co., Pittsburg, Pa.
Portland Wood Pipe Co., Portland, Ore.
United Paving Co., Atlantic City, N. J.
Wardwell, Frederick S., Stamford, Conn.

Pitch

Barrett Mfg. Co., 17 Battery Pl., New York.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Eastern Asphalt Supply Co., 115 Broadway, New York.

Plaster

Hydrolithic Cement Co., 138 Jackson Boul., Chicago.

Plates (Steel)

American Bridge Co., 30 Church St., New York.
Carnegie Steel Co., Pittsburg, Pa.
Kratzer & Co., W. N., Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Milliken Bros., Milliken, N. Y.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Riverside Bridge Co., Martins Ferry, Ohio.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Virginia Bridge & Iron Co., Roanoke, Va.
Whitehead & Kales Iron Works, Detroit, Mich.

Pliers (Wire-Cutting)

Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Wiebusch & Hilger, 106-110 Lafayette St., New York.

Mention "Engineering Record" when writing.

Plows (See Road Machinery)

Plumbers' Materials (Sanitary Specialties, Etc.)

Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Merritt & Co., 125 Front St., Camden, N. J.

Pneumatic Tools

Allen, John F., 370-372 Gerard Ave., New York.
Fairbanks Co., New York & Chicago.
Independent Pneumatic Tool Co., 1307 Michigan Ave., Chicago, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.

Poles and Posts (Iron, Steel, Trolley, Etc.)

Carnegie Steel Co., Pittsburg, Pa.
Franklin Steel Co., Franklin, Pa.
Gulfport Creosoting Co., Gulfport, Miss.
Milliken Bros., Milliken, N. Y.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Terry & Tench, New York.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Wyckoff Pipe & Creosoting Co., 50 Church St., New York.

Portland Cement

Allentown Portland Cement Co., Allentown, Pa.
Alpha Portland Cement Co., Easton, Pa.
Alsen American Portland Cement Works, 45 Broadway, New York.
American Cement Co., 603-10 Penna. Bldg., Philadelphia.
Atlas Portland Cement Co., 30 Broad St., New York.
Chicago Portland Cement Co., Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Coplay Cement Mfg. Co., Penn Bldg., Philadelphia, Pa.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Edison Portland Cement Co., St. James Bldg., New York.
French & Co., Samuel H., Philadelphia, Pa.
Glens Falls Portland Cement Co., Glens Falls, N. Y.
Harrison Waterproofing Materials Co., 30 Church St., New York.
Hartranft Cement Co., Wm. G., Real Estate Trust Bldg., Philadelphia, Pa.
Helderberg Cement Co., 78 State St., Albany, N. Y.
Hydrolithic Cement Co., 138 Jackson Blvd., Chicago, Ill.
Ironton Portland Cement Co., Ironton, Ohio.
Lawrence Cement Co., 1 Broadway, New York.
Lehigh Portland Cement Co., Allentown, Pa.
Marquette Cement Mfg. Co., Marquette Bldg., Chicago.
New Castle Portland Cement Co., New Castle, Pa.
Peninsula Portland Cement Co., Jackson, Mich.
Pennsylvania Cement Co., 26 Cortlandt St. New York.
Universal Portland Cement Co., 115 Adams St., Chicago.
Vulcanite Portland Cement Co., 200 Fifth Ave., N. Y.
Warner Co., Charles, Wilmington, Del.

Pots, Melting (See Kettles, Melting)

Powder (See Also Explosives)

Bond Co., Harold L., 383-391 Atlantic Ave, Boston, Mass.
Du Pont de Nemours Powder Co., E. I., Wilmington, Del.
Keystone Powder Mfg. Co., Emporium, Pa.
National Powder Co., 200 Fifth Ave., New York.

Mention "Engineering Record" when writing.

New York Blasting & Supply Co., 11 Broadway, N. Y.
Sinnamahoning Powder Co., Emporium, Pa.

Power Plant Piping

Excelsior Wooden Pipe Co., 916 Balboa Bldg., San Francisco, Cal.
Kellogg Co., M. W., 50 Church St., New York.
Kidde, Walter, 140 Cedar St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
National Valve & Mfg. Co., Pittsburg, Pa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Portland Wood Pipe Co., Portland, Ore.
United Paving Co., Atlantic City, N. J.

Power Transmission Machinery

Allis-Chalmers Co., Milwaukee, Wis.
American Mfg. Co., 65 Wall St., New York.
Channon Co., H., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave., West of 17 St., Philadelphia, Pa.
General Electric Co., Schenectady, N. Y.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Kellogg Co., M. W., 50 Church St., New York.
Morse Chain Co., Ithaca, N. Y.
Platt Iron Works Co., Dayton, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Presses (Hydraulic)

Abenague Machine Works, Westminster Station, Vt.
Dudgeon, Richard, 24 Columbia St., New York.
Dunning, W. D., Syracuse, N. Y.
Lake Erie Engineering Works, Buffalo, N. Y.
Morris Co., I. P., Philadelphia, Pa.
Platt Iron Works Co., Dayton, Ohio.
Watson-Stillman Co., 58 Church St., New York.

Presses (Screw)

American Process Co., 68 William St., New York.
Dunning, W. D., Syracuse, N. Y.
Leader Foundry & Machine Co., Quincy, Ill.

Producers, Gas (See Gas Producers)

Pullers (Car)

Hunt Co., C. W., West New Brighton, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Pulleys

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.
Channon Co., H., Chicago, Ill.
Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Platt Iron Works Co., Dayton, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Mention "Engineering Record" when writing.

Pulverizers

Advance Pump & Compressor Co., Battle Creek, Mich.
Allis-Chalmers Co., Milwaukee, Wis.
American Pulverizer Co., St. Louis, Mo.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bradley Pulverizer Co., 92 State St., Boston, Mass.
Eureka Stone & Ore Crushing Co., Cedar Rapids, Iowa.
International Sand-Lime Brick & Machinery Co., 90
West St., New York.
Kent Mill Co., 170 Broadway, New York.
Lehigh Car Wheel & Axle Works, Catasauqua, Pa.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Prosser & Son, Thos., 15 Gold St., New York.
Raymond Bros. Impact Pulverizer Co., 1500 Harison St.,
Chicago, Ill.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Pumps (Centrifugal)

Abenaque Machine Works, Westminster Station, Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.
Alberger Condenser Co., 140 Cedar St., New York.
Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Buffalo Steam Pump Co., Buffalo, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Channon Co., H., Chicago, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., Salem, Ohio.
D'Olier Engineering Co., 119-121 S. 11th St., Philadelphia.
Dow Pumping Engine Co., Geo. E., 179 First St. San
Francisco, Cal.
Emerson Steam Pump Co., Alexandria, Va.
Erie Pump & Engine Works, Erie, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hush, H. J., 39-41 Cortlandt St., New York.
International Steam Pump Co., 115 Broadway, New York.
Lawrence Pump & Engine Co., Lawrence, Mass.
Lea Equipment Co., 90 West St., New York.
McCoy Co., Henry J., 65-67 Dey St., New York.
Mietz, August, 128-138 Mott St., New York.
Morris Co., I. P., Philadelphia, Pa.
Morris Machine Works, Baldwinsville, N. Y.
Pacific Tank & Pipe Co., San Francisco, Cal.
Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
Platt Iron Works Co., Dayton, Ohio.
Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
Rider-Ericsson Engine Co., 35 Warren St., New York.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Taylor Iron & Steel Co., High Bridge, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Wheeler, C. H. Mfg. Co., Philadelphia, Pa.
Wickes Bros., 90 West St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Deep Well)

Abenaque Machine Works, Westminster Station, Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.
American Well Works, Aurora, Ill.

Mention "Engineering Record" when writing.

Artesian Well & Supply Co., Providence, R. I.
 Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Builders' Material Supply Co., 301-335 Scarritt Bldg.,
 Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., Salem, Ohio.
 Dow Pumping Engine Co., Geo. E., 179 First St., San
 Francisco, Cal.
 Epping-Carpenter Co., Pittsburg, Pa.
 Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hush, H. J., 39-41 Cortlandt St., New York.
 Ingersoll-Rand Co., 11 Broadway, New York.
 International Steam Pump Co., 115 Broadway, New York.
 Keystone Driller Co., Beaver Falls, Pa.
 Meitz, August, 128-138 Mott St., New York.
 Platt Iron Works Co., Dayton, Ohio.
 Rider-Ericsson Engine Co., 35 Warren St., New York.
 Union Steam Pump Co., Battle Creek, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.
 U. S. Wind Engine & Pump Co., Batavia, Ill.
 Wickes Bros., 90 West St., New York.
 United States Equipment Co., 1201 Fisher Bldg., Chicago.

Pumps (Diaphragm)

Abenague Machine Works, Westminster Station, Vt.
 Advance Pump & Compressor Co., Battle Creek, Mich.
 Bond Co., Harold L., 383-391 Atlantic Ave, Boston, Mass.
 Braender, Phillip, 143 West 125th St., New York.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Channon Co., H., Chicago, Ill.
 Deming Co., Salem, Ohio.
 Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
 Fairbanks Co., New York & Chicago.
 Fairbanks, Morse & Co., Chicago, Ill.
 Fuller & Johnson Mfg. Co., 508 Galena St., Madison, Wis.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 International Steam Pump Co., 115 Broadway, New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Merritt & Co., 125 Front St., Camden, N. J.
 Parker, A. A., Waterford, N. Y.
 Platt Iron Works Co., Dayton, Ohio.

Pumps (Dredging)

Advance Pump & Compressor Co., Battle Creek, Mich.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Builders' Material Supply Co., 301-335 Scarritt Bldg.,
 Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Deming Co., Salem, Ohio.
 Dow Pumping Engine Co., Geo. E., 179 First St., San
 Francisco, Cal.
 Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
 Ellicott Machine Co., Bush & Severn Sts., Baltimore.
 Erie Pump & Engine Works, Erie, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hough Co., W. B. Monadnock Block, Chicago, Ill.
 International Steam Pump Co., 115 Broadway, New York.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 Morris Machine Works, Baldwinsville, N. Y.

Mention "Engineering Record" when writing.

Platt Iron Works Co., Dayton, Ohio.
Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Mine)

Advance Pumps & Compressor Co., Battle Creek, Mich.
Alberger Condenser Co., 140 Cedar St., New York.
Alberger Pump Co., 140 Cedar St., New York.
Allis-Chalmers Co., Milwaukee, Wis.
Ansonia Mfg. Co., 30 Church St., New York.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Blakeslee Mfg. Co., Du Quoin, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.
Dean Bros Steam Pump Works, Indianapolis, Ind.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., Salem, Ohio.
D'Olier Engineering Co., 119-121 S. 11th St., Philadelphia.
Dow Pumping Engine Co., Geo. E., San Francisco, Cal.
Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
Emerson Steam Pump Co., Alexandria, Va.
Epping-Carpenter Co., Pittsburg, Pa.
Erie Pump & Engine Works, Erie, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Mfg. Co., Seneca Falls, N. Y.
International Steam Pump Co., 115 Broadway, New York.
Jeansville Iron Works Co., Hazleton, Pa.
Lawrence Pump & Engine Co., Lawrence, Mass.
Lea Equipment Co., 90 West St., New York.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Mietz, August, 128-138 Mott St., New York.
Morris Machine Works, Baldwinsville, N. Y.
Pacific Tank & Pipe Co., 318 Market St., San Francisco, Cal.
Platt Iron Works Co., Dayton, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Pulsometer Steam Pump Co., 16 Battery Pl., New York.
Union Steam Pump Co., Battle Creek, Mich.
United States Equipment Co., Chicago, Ill.
Wickes Bros., 90 West St., New York.
Wood Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Operated by Air)

Abenague Machine Works, Westminster Station, Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.
American Well Works, Aurora, Ill.
Ansonia Mfg. Co., 30 Church St., New York.
Blakeslee Mfg. Co., Du Quoin, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
Epping-Carpenter Co., Pittsburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Goulds Mfg. Co., Seneca Falls, N. Y.
Ingersoll-Rand Co., 11 Broadway, New York.
International Steam Pump Co., 115 Broadway, New York.
Jeansville Iron Works Co., Hazleton, Pa.
Merritt & Co., 125 Front St., Camden, N. J.
Rider-Ericsson Engine Co., 35 Warren St., New York.
Union Steam Pump Co., Battle Creek, Mich.

Pumps (Rotary)

Abenague Machine Works, Westminster Station, Vt.
Advance Pump & Compressor Co., Battle Creek, Mich.

Mention "Engineering Record" when writing.

American Well Works, Aurora, Ill.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Channon Co., H., Chicago, Ill.
 Deming Co., Salem, Ohio.
 Emerson Steam Pump Co., Alexandria, Va.
 Fairbanks, Morse & Co., Chicago, Ill.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 International Steam Pump Co., 115 Broadway, New York.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Pacific Tank & Pipe Co., 318 Market St., San Francisco, Cal.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wheeler, C. H., Mfg. Co., Philadelphia, Pa.

Pumps (Sand)

Advance Pump & Compressor Co., Battle Creek, Mich.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Well Works, Aurora, Ill.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Builders Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Ellicott Machine Co., Bush & Severn Sts., Baltimore.
 Emerson Steam Pump Co., Alexandria, Va.
 Erie Pump & Engine Works, Erie, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 International Steam Pump Co., 115 Broadway, New York.
 Keystone Driller Co., Beaver Falls, Pa.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Marine Metal & Supply Co., 167 South St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 Morris Machine Works, Baldwinsville, N. Y.
 Pacific Tank & Pipe Co., 318 Market St., San Francisco, Cal.
 Parker, A. A., Waterford, N. Y.
 Platt Iron Works, Dayton, Ohio.
 Pulsometer Steam Pump Co., 16 Battery Pl., New York.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Steam and Power)

Advance Pump & Compressor Co., Battle Creek, Mich.
 Allis-Chalmers Co., Milwaukee, Wis.
 Artesian Well & Supply Co., Providence, R. I.
 Baldwin, Wm. J., World Bldg., New York.
 Blakeslee Mfg. Co., Du Quoin, Ill.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Burr, E. M., Champaign, Ill.
 Channon Co., H., Chicago, Ill.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., Salem, Ohio.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Dudgeon, Richard, 24 Columbia St., New York.
 Emerson Steam Pump Co., Alexandria, Va.
 Epping-Carpenter Co., Pittsburg, Pa.

Mention "Engineering Record" when writing.

Erie Pump & Engine Works, Erie, Pa.
 Fairbanks, Morse & Co., Chicago, Ill.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 International Steam Pump Co., 115 Broadway, New York.
 Jeansville Iron Works Co., Hazleton, Pa.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Parker, A. A., Waterford, N. Y.
 Parker, F. J., Pennsylvania Bldg., Philadelphia, Pa.
 Platt Iron Works Co. Dayton, Ohio.
 Prescott Steam Pump Co., Milwaukee, Wis.
 Union Steam Pump Co., Battle Creek, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Walker Mfg. Co., Fenton, Mich.
 Wheeler, C. H., Mfg. Co., Philadelphia, Pa.
 Wickes Bros., 90 West St., New York.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Turbine)

Advance Pump & Compressor Co., Battle Creek, Mich.
 Alberger Condenser Co., 140 Cedar St., New York.
 Alberger Pump Co., 140 Cedar St., New York.
 Allis-Chalmers Co., Milwaukee, Wis.
 Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
 Blakeslee Mfg. Co., Du Quoin, Ill.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
 De Laval Steam Turbine Co., Trenton, N. J.
 D'Olier Engineering Co., 119-121 S. 11th St., Philadelphia, Pa.
 Foos Gas Engine Co., Springfield, Ohio.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hough Co., W. B., Monadnock Block, Chicago, Ill.
 International Steam Pump Co., 115 Broadway, New York.
 Jeansville Iron Works Co., Hazleton, Pa.
 Lawrence Pump & Engine Co., Lawrence, Mass.
 Lea Equipment Co., 90 West St., New York.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 Morris Co., I. P., Philadelphia, Pa.
 Morris Machine Works, Baldwinville, N. Y.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Rider-Eicsson Engine Co., 35 Warren St., New York.
 Southwark Fdry & Mch Co., Philadelphia, Pa.
 Watson-Stillman Co., 58 Church St., New York.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Vacuum)

Advance Pump & Compressor Co., Battle Creek, Mich.
 Alberger Condenser Co., 140 Cedar St., New York.
 Alberger Pump Co., 140 Cedar St., New York.
 American Air Compressor Works, 26 Cortlandt St., N. Y.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., Salem, Ohio.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Emerson Steam Pump Co., Alexandria, Va.
 Epping-Carpenter Co., Pittsburg, Pa.
 Fairbanks, Morse & Co., Chicago, Ill.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 International Steam Pump Co., 115 Broadway, New York.

Mention "Engineering Record" when writing.

Jeansville Iron Works Co., Hazleton, Pa.
 Keystone Driller Co., Beaver Falls, Pa.
 Pacific Tank & Pipe Co., 318 Market St., San Francisco, Cal.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Milwaukee, Wis.
 Union Steam Pump Co., Battle Creek, Mich.
 United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
 Wheeler, C. H., Mfg. Co., Philadelphia, Pa.
 Wickes Bros., 90 West St., New York.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Pumps (Waterworks)

Abenague Machine Works, Westminster Station, Vt.
 Advance Pump & Compressor Co., Battle Creek, Mich.
 Alberger Condenser Co., 140 Cedar St., New York.
 Alberger Pump Co., 140 Cedar St., New York.
 Allis-Chalmers Co., Milwaukee, Wis.
 American Well Works, Aurora, Ill.
 Artesian Well & Supply Co., Providence, R. I.
 Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
 Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
 Buffalo Steam Pump Co., Buffalo, N. Y.
 De Laval Steam Turbine Co., Trenton, N. J.
 Deming Co., Salem, Ohio.
 D'Olier Engineering Co., 119-121 So. 11th St., Philadelphia, Pa.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
 Epping-Carpenter Co., Pittsburg, Pa.
 Erie Pump & Engine Works, Erie, Pa.
 Fairbanks, Morse & Co., Chicago, Ill.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hush, H. J., 39-41 Cortlandt St., New York.
 Ingersoll-Rand Co., 11 Broadway, New York.
 International Steam Pump Co., 115 Broadway, New York.
 Jeansville Iron Works Co., Hazleton, Pa.
 Lake Erie Engineering Works, Buffalo, N. Y.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Mietz, August, 128-133 Mott St., New York.
 Murray Iron Works Co., Burlington, Iowa.
 Platt Iron Works Co., Dayton, Ohio.
 Prescott Steam Pump Co., Fred M., Milwaukee, Wis.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Union Steam Pump Works, Battle Creek, Mich.
 Walker Mfg. Co., Fenton, Mich.

Pumps (Windmill)

Abenague Machine Works, Westminster Station, Vt.
 Advance Pump & Compressor Co., Battle Creek, Mich.
 Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
 Deming Co., Salem, Ohio.
 Fairbanks, Morse & Co., Chicago, Ill.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hush, H. J., 39 & 41 Cortland St., New York.
 U. S. Wind Engine & Pump Co., Batavia, Ill.

Punches (Beam and Angle)

Bertsch & Co., Cambridge City, Ind.
 Buffalo Forge Co., Buffalo, N. Y.
 Cockburn Barrow & Machine Co., 30 Church St., N. Y.
 Dudgeon, Richard, 24 Columbia St., New York.
 Pels & Co., Henry, 90 West St., New York.

Mention "Engineering Record" when writing.

Watson-Stillman Co., 58 Church St., New York.
Wickes Bros., 90 West St., New York.
Wiener Machinery Co., 50 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Push Cars (See Cars, Hand and Push)

Quarry Bars

Ingersoll-Rand Co., 11 Broadway, New York.
Sullivan Machinery Co., Chicago, Ill.
Wood Drill Co., Paterson, N. J.

Quarry Machinery

Allis-Chalmers Co., Milwaukee, Wis.
American Air Compressor Works, 26 Cortlandt St., N. Y.
American Hoist & Derrick Co., St. Paul, Minn.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Channon Co., H., Chicago, Ill.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dake Engine Co., Grand Haven, Mich.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Flory Mfg. Co., S., Bangor, Pa.
Ingersoll-Rand Co., 11 Broadway, New York.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Maine Electric Co., Portland, Me.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
New York Cableway & Engineering Co., 2 Rector St., New York.
New York Blasting Supply Co., 11 Broadway, N. Y.
Power & Mining Machinery Co., Milwaukee, Wis.
Pulsometer Steam Pump Co., 16 Battery Pl., New York.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
Wickes Bros., 90 West St., New York.
Williamson Bros. Co., Philadelphia, Pa.
Wood Drill Co., Paterson, N. J.

Radiators

American Radiator Co., New York and Chicago.
Baldwin, Wm. J., World Bldg., New York.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Kewanee Boiler Co., Kewanee, Ill.
Smith Co., H. B., Westfield, Mass.
Walworth Mfg Co., 128-136 Federal St., Boston, Mass.

Rail Joints, Fastenings and Specialties

Carnegie Steel Co., Pittsbrg, Pa.
Goldschmidt Thermit Co., 90 West St., New York.
Lackawanna Steel Co., 2 Rector St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. 4th St., St. Louis, Mo.

Railings, Guards, Fences, Etc.

Anchor Post Iron Works, 15 Church St., New York.
Fairbanks, Morse & Co., Chicago, Ill.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Railroad Track Supplies

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.

Mention "Engineering Record" when writing.

Fairbanks, Morse & Co., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Peteler Car Co., Minneapolis, Minn.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
St. Louis, Mo.

Rails and Track

Carnegie Steel Co., Pittsburg, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Lackawanna Steel Co., 2 Rector St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Ohio Ceramic Engrg. Co., Cleveland, Ohio.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Peteler Car Co., Minneapolis, Minn.
Stuebner Iron Works, G. L., Ft. of 12th St., L. I. City.
New York.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St.
Louis, Mo.

Rails, Second-Hand

Barron & Cole Co., 127 Franklin St., New York.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Inter-State Equipment & Engineering Co., 1775 Old
Colony Bldg., Chicago, Ill.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Southern Iron & Equipment Co., Atlanta, Ga.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
St. Louis, Mo.

Railways, Industrial and Narrow-Gauge

Acme Equipment & Engineering Co., Cleveland, Ohio.
American Engineering & Construction Co., 789-791-793
Drexel Bldg., Philadelphia, Pa.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Peteler Car Co., Minneapolis, Minn.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Rate Controllers for Filters

Builders Iron Foundry, Providence, R. I.
Merritt & Co., 125 Front St., Camden, N. J.
New York Continental Jewell Filtration Co., 15 Broad
St., New York.
Norwood Engineering Co., Florence, Mass.
Simplex Valve & Meter Co., Philadelphia, Pa.

Reamers

Fairbanks Co., New York & Chicago.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Mention "Engineering Record" when writing.

Refrigerating Plants

Kidde, Walter, 140 Cedar St., New York.

Regulators (Steam)

Allis-Chalmers Co., Milwaukee, Wis.
American District Steam Co., Lockport, N. Y.
Foster Engineering Co., Newark, N. J.
Walworth Mfg Co., 128-136 Federal St., Boston, Mass.
Westinghouse Machine Co., Pittsburg, Pa.

Regulators (Water-Pressure)

Allis-Chalmers Co., Milwaukee, Wis.
Foster Engineering Co., Newark, N. J.
Pittsburg Meter Co., East Pittsburg, Pa.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Reinforced Concrete Construction (See Concrete, Reinforced)

Reinforcement Steel for Concrete Work

Adjustable Steel Centering Co., Fond du Lac, Wis.
American Steel & Wire Co., Chicago, Ill.
American System of Reinforcing, 189 La Salle St., Chicago, Ill.
Belmont Iron Works, Philadelphia, Pa.
Buffalo Steel Co., Tonawanda, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Calumet Steel Co., Chicago, Ill.
Carey Construction Co., 211 Lennox Bldg., Cleveland, O.
Carnegie Steel Co., Pittsburg, Pa.
Clinton Bridge & Iron Works, Clinton, Iowa.
Clinton Wire Cloth Co., Clinton, Mass.
Concrete Steel Co., 29 Broadway, N. Y.
Concrete-Steel Engrg. Co., Park Row Bldg., New York.
Corrugated Bar Co., 1410 Bank of Com. Bldg., St. Louis.
Franklin Steel Co., Franklin, Pa.
General Fireproofing Co., Youngstown, Ohio.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Inland Steel Co., Chicago, Ill.
Interlocking Steel Co., Cleveland, Ohio.
Janney, Steinmetz & Co., Philadelphia, Pa.
Kratzer & Co., W. N., Pittsburg, Pa.
Lackawanna Steel Co., 2 Rector St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Mitchell & Tappen, 122 Liberty St., New York.
National Wire Cloth Co., Sandusky, Ohio.
Pennsylvania Steel Works, Steelton, Pa.
Riverside Bridge Co., Martin's Ferry, Ohio.
Roebbling Construction Co., 949 Broadway, New York.
Trussed Concrete Steel Co., Detroit, Mich.
Turner Construction Co., New York.

Riveting Hammers (See Pneumatic Tools)

Riveting Machines

Allen, John F., 370-372 Gerard Ave., New York.
Buffalo Forge Co., Buffalo, N. Y.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Rivets

American Bridge Co., 30 Church St., New York.
Fairbanks Co., New York & Chicago.

Mention "Engineering Record" when writing.

Janney, Steinmetz & Co., Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Pennsylvania Steel Co., Steelton, Pa.
Pittsburg Mfg. Co., Pittsburg, Pa.

Road Machinery

Abenaque Machine Works., Westminster Station, Vt.
Austin Mfg. Co., Chicago, Ill.
Austin-Western Co., Ltd., Chicago, Ill.
Avery Co., 984 Iowa St., Peoria, Ill.
Barrett Mfg. Co., 17 Battery Pl., New York.
Barron & Cole Co., 127 Franklin St., New York.
Buffalo Pitts Co., Buffalo, N. Y.
Buffalo Steam Roller Co., Buffalo, N. Y.
Channon Co., H., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Farquhar Co., A. B., Box 704, York, Pa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago, Ill.
Godwin, W. S., Box 95, Times Sq. Station, New York.
Good Roads Machinery Co., Kennett Square, Pa.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
Iroquois Iron Works, Buffalo, N. Y.
Kelly-Springfield Road Roller Co., Springfield, Ohio.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Studebaker Bros. Mfg. Co., So. Bend, Ind.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Thew Automatic Shovel Co., Lorain, Ohio.
Topping, Howell, 52 Church st, New York.
Troy Wagon Works Co., South Walnut St., Troy, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Universal Road Machinery Co., 120 Liberty St., N. Y.

Road Oils and Preservatives (See Also Asphalt; Also Paving Joint Filler)

American Asphaltum & Rubber Co., Chicago.
American Tar Co., Boston, Mass.
Barber Asphalt Paving Co., Land Title Bldg., Phila. Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Barron & Cole Co., 127 Franklin st., New York.
Eastern Asphalt Supply Co., 115 B'way, New York.
Gulf Refining Co., Frick Bldg. Annex, Pittsburg, Pa.
Indian Refining Co., 182 Natl. Bank Bldg., Cincinnati, O.
Standard Asphalt & Rubber Co., Chicago.
Standard Oil Co., of New York, 26 Broadway, N. Y.
Texas Co., 17 Battery Pl., New York.
Topping, Howell, 52 Church st., New York.

Road Rollers

Austin Mfg. Co., Chicago, Ill.
Austin-Western Co., Ltd., Chicago, Ill.
Avery Co., 984 Iowa St., Peoria, Ill.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Barron & Cole Co., 127 Franklin st., New York.
Buffalo Steam Roller Co., Buffalo, N. Y.
Case Threshing Machine Co., J. I., Racine, Wis.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Erie Machine Shops, 13th & Peach Sts., Erie, Pa.
Foote Concrete Machinery Co., 184 La Salle St., Chicago.
Good Roads Machinery Co., Kennett Sq., Pa.

Mention "Engineering Record" when writing.

Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Huber Mfg. Co., Marion, Ohio.
Iroquois Iron Works, Buffalo, N. Y.
Kelly-Springfield Road Roller Co., Springfield, Ohio.
Longenecker & Co., Chas. W., 150 Nassau St., N. Y.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.

Road Rollers (Horse)

Austin Mfg. Co., Chicago, Ill.
Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Iroquois Iron Works, Buffalo, N. Y.
Longenecker & Co., Chas. W., 150 Nassau St., N. Y.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.

Rolling Mill Machinery

Lake Erie Engineering Works, Buffalo, N. Y.

Roofing

Amer. Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Asbestos Protected Metal Co., Canton, Mass.
Barber Asphalt Paving Co., Land Title Bldg., Phila. Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Berger Mfg. Co., Canton, Ohio.
Bird & Co., J. A. & W., Boston, Mass.
Bird & Son, F. W., East Walpole, Mass.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Farwell, Ozmun, Kirk & Co., St. Paul Minn.
Garry Iron & Steel Co., Cleveland, Ohio.
Johns-Manville Co., H. W., 100 William St., New York.
Minwax Co., 1123 Broadway, New York.
Standard Paint Co., 100 William St., New York.
Warner Co., Charles, Wilmington, Del.

Roofing (Asphalt)

Amer. Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Bird & Co., J. A. & W., Boston, Mass.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Fairbanks, Morse & Co., Chicago, Ill.
Garry Iron & Steel Co., Cleveland, Ohio.
Indian Refining Co., First Natl. Bank Bldg., Cincinnati.
Johns-Mansville Co., H. W., 100 William St., New York.
Minwax Co., 1123 Broadway, New York.
Standard Asphalt & Rubber Co., 205 La Salle St., Chicago, Ill.
Texas Co., 17 Battery Pl., New York.
Warner Co., Charles, Wilmington, Del.

Roofing (Gravel)

Amer. Asphaltum & Rubber Co., 600-614 Harvester Bldg., Chicago, Ill.
Barber Asphalt Paving Co., Land Title Bldg., Phila., Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Bird & Co., J. A. & W., Boston, Mass.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Pittsburg Sand & Supply Co., Baden, Pa.
Warner Co., Charles, Wilmington, Del.

Roofs (See Bridges, Roofs, Etc.)

Rope (Manila)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.

Mention "Engineering Record" when writing.

American Mfg. Co., 65 Wall St., New York City.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Builders Material Supply Co., 301-335 Scarritt Bldg.,
 Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Hunt Co., C. W., West New Brighton, N. Y.
 Leschen & Sons Rope Co., St. Louis, Mo.
 Longenecker & Co., Chas. W., 150 Nassau St., New York.
 New York Blasting Supply Co., 11 Broadway, New York.
 Trenton Iron Co., Trenton, N. J.
 Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Rope (Transmission Power)

Allis-Chalmers Co., Milwaukee, Wis.
 American Mfg. Co., 65 Wall St., New York City.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Channon Co., H., Chicago, Ill.
 Cresson Co., Geo. V., Allegheny Ave., West of 17th
 St., Philadelphia, Pa.
 Hunt Co., C. W., West New Brighton, N. Y.
 Jones & Laughlin Steel Co., Pittsburg, Pa.
 Leschen & Sons Rope Co., St. Louis, Mo.
 Marine Metal & Supply Co., 167 South St., New York.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Stephens-Adamson Mfg. Co., Aurora, Ill.
 Trenton Iron Co., Trenton, N. J.
 Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Rope (Wire)

American Hoist & Derrick Co., St. Paul, Minn.
 American Steel & Wire Co., 115 Adams St., Chicago, Ill.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Broderick & Bascom Rope Co., St. Louis, Mo.
 Brown Hoisting Machinery Co., Cleveland, Ohio.
 Builders Material Supply Co., 301-335 Scarritt Bldg.,
 Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
 Cresson Co., Geo. V., Allegheny Ave., west of 17th
 St., Philadelphia, Pa.
 Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
 Hunt Co., C. W., West New Brighton, N. Y.
 Leschen & Sons Rope Co., St. Louis, Mo.
 Longenecker & Co., Chas. W., 150 Nassau St., N. Y.
 Maine Electric Co., Portland, Me.
 Marine Metal & Supply Co., 167 South St., New York.
 New York Blasting Supply Co., 11 Broadway, New York.
 Roebling Sons Co., Jno. A., Trenton, N. J.
 Terry & Tench, New York.
 Trenton Iron Co., Trenton, N. J.

Rubber Boots (See Also Boots)

Goodrich Co., B. F., Akron, Ohio.
 Hundebly Manufacturing Co., 2021 Washington Ave.,
 North, Minneapolis.
 Mulconroy Co., 722 Arch St., Philadelphia, Pa.
 McCoy Co., Henry J., 65-67 Dey St., New York.
 New York Blasting Supply Co., 11 Broadway, New York.
 Rubberhide Co., 212 Essex St., Boston, Mass.

Rules and Tapes (See Also Engineers' and Surveyors' Instruments and Supplies)

French, Arthur W., Worcester Polytechnic Institute,
 Worcester, Mass.

Mention "Engineering Record" when writing.

Iszard-Warren Co., 136 W. 12th St., Philadelphia, Pa.
Keuffel & Esser Co., Hoboken, N. J.
Kolesch & Co., 138 Fulton St., New York.
Wiebusch & Hilger, 106-110 Lafayette St., New York.
Williams, Brown & Earle, 916 Chestnut St., Phila., Pa.

Sand

New York Continental Jewell Filtration Co., 15 Broad St., New York.
Pittsburg Sand & Supply Co., Baden, Pa.
Warner Co., Charles, Wilmington, Del.

Sand-Blast Machines

Abenague Machine Works, Westminster Station, Vt.

Sash Operating Apparatus

Drouve Co., G., Bridgeport, Conn.
Hitchings & Co., Elizabeth, N. J.
Lord & Burnham Co., Irvington, N. Y.
Lupton's Sons Co., David, Allegheny Ave. & Witte St., Philadelphia, Pa.
National Ventilating Co., 337 E 26th St., New York.

Saw-Mill Machinery

Abenague Machine Works, Westminster Station, Vt.
Allis-Chalmers Co., Milwaukee, Wis.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Dake Engine Co., Grand Haven, Mich.
Drouve Co., G., Bridgeport, Conn.
Exeter Machine Works, Exeter, N. H.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Minneapolis Steel Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Newell A. T., 629 Brown Marx Bldg., Birmingham, Ala.

Scale Boxes

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Union Iron Works, Hoboken, N. J.

Scales (See Also Weighing Machinery)

Chicago Scale Co., 1021 Jackson Boulevard, Chicago, Ill.
Conveying Weigher Co., 92 West St., New York.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hunt Co., C. W., West New Brighton, N. Y.
Richardson Scale Co., 3a Park Row, New York.
Standard Scale & Supply Co., 50-52 So. Canal St., Chicago, Ill.

Scarifiers (See Also Road Machinery)

Austin-Western Co., Ltd., Chicago, Ill.
Buffalo Steam Roller Co., Buffalo, N. Y.
Kelly-Springfield Road Roller Co., Springfield, Ohio.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Universal Road Machinery Co., New York.

Schools and Colleges

American School of Correspondence, Chicago, Ill.
Clarkson School of Technology, Potsdam, N. Y.
International Correspondence Schools, Box 923 W., Scranton, Pa.

Mention "Engineering Record" when writing.

Lafayette College, Easton, Pa.
 Michigan College of Mines, Houghton, Mich.
 New York University, University Heights, New York.
 Pennsylvania Military College, Chester, Pa.
 Polytechnic Institute of Brooklyn, Brooklyn, N. Y.
 Rensselaer Polytechnic Institute, Troy, N. Y.
 Rose Polytechnic Institute, Terre Haute, Ind.
 Sheffield Scientific School, New Haven, Conn.
 Stevens School, Hoboken, N. J.
 Tufts College, Tufts College P. O., Mass.
 University of Illinois, Urbana, Ill.
 University of Pennsylvania, Philadelphia, Pa.
 University of Pittsburg, Pittsburg, Pa.
 University of Vermont, Burlington, Vt.
 Washington University, St. Louis, Mo.

Scrapers (Drag Line)

Browning Mfg. Co., Cleveland, Ohio.
 Bucyrus Co., South Milwaukee, Wis.
 Channon Co., H., Chicago, Ill.
 Hadsel Engineering Co., Scranton, Pa.
 Heyworth, James O., Harvester Bldg., Chicago, Ill.
 Lidgerwood Crawford Co., 1917 Fisher Bldg., Chicago.
 Monighan Machine Co., 2016 Carroll Ave., Chicago, Ill.

Scrapers, Road (See Also Road Machinery)

Austin Mfg. Co., Chicago, Ill.
 Barron & Cole Co., 127 Franklin St., N. Y.
 Good Roads Machinery Co., Kennett Sq., Pa.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
 United States Equipment Co., 1201 Fisher Bldg. Chicago Ill.

Screens (Sand, Coal, Gravel and Water)

Allis-Chalmers Co., Milwaukee, Wis.
 American Pulverizer Co., St. Louis, Mo.
 Austin-Western Co., Ltd., Chicago, Ill.
 Bartlett & Snow Co., C. O., Cleveland, Ohio.
 Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
 Channon Co., H., Chicago, Ill.
 Clinton Wire Cloth Co., Clinton, Mass.
 Eureka Stone & Ore Crusher Co., Cedar Rapids, Iowa.
 Hunt Co., C. W., West New Brighton, N. Y.
 Kent Mill Co., 170 Broadway, N. Y.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Power & Mining Machinery Co., Milwaukee, Wis.
 Ransome Concrete Machinery Co., Dunellen, N. J.
 Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
 Sturtevant Mill Co., Harrison Sq., Boston, Mass.
 Union Iron Works, Hoboken, N. J.
 Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Second-Hand Machinery and Supplies

Abenague Machine Works, Westminster Station, Vt.
 Architects' & Engineers' Supply Co., 1010 Grand Ave., Kansas City, Mo.
 Atlantic Equipment Co., 30 Church St., New York.
 Barron & Cole Co., 127 Franklin St., N. Y.
 Crimmins Contracting Co., Thos., 444 East 69th St., N.Y.
 Foote Concrete Machinery Co., 184 La Salle St., Chicago.
 Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
 Leader Foundry & Machine Co., Quincy, Ill.
 Marine Metal & Supply Co., 167 South St., New York.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.

Mention "Engineering Record" when writing.

McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Parker, F. J., Pennsylvania Bldg., Philadelphia Pa.
Southern Iron & Equipment Co. Atlanta, Ga.
Troy Public Works Co., Utica, N. Y.
United States Equipment Co., 1201 Fisher Bldg., Chicago, Ill.
Wickes Bros., 90 West St., New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

Separators (Cement, Plaster, Etc.)

American Pulverizer Co., St. Louis, Mo.
Nichols, E. M., Philadelphia, Pa.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.

Separators (Steam and Oil)

American Blower Co., Detroit, Mich.
American Radiator Co., New York & Chicago.
American District Steam Co., Lockport, N. Y.
Baldwin, Wm. J., World Bldg., New York.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.

Service Boxes

Fox & Co., John, 253 Broadway, New York.
Johns-Manville Co., H. W., 100 William St., New York.
Water Works Equipment Co., 50 Church St., New York.

Settees (Iron)

Milliken Bros., Milliken, N. Y.

Sewage Disposal

Albright & Mebus, Land Title Bldg., Philadelphia, Pa.
Allis-Chalmers Co., Milwaukee, Wis.
American Pipe & Construction Co., Philadelphia, Pa.
American Process Co., 68 William St., New York.
Ansonia Mfg. Co., 30 Church St., New York.
Atlas Dryer Co., Cleveland, Ohio.
Cameron Septic Tank Co., 352 & 356 Monadnock Block, Chicago, Ill.
City Wastes Disposal Co., 156 Fifth Ave., New York.
Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
Grunsky, C. E., 45 Broadway, New York.
Lewis & Kitchen 1200 Michigan Ave., Chicago, Ill.
Merritt & Co., 125 Front St., Camden, N. J.
Pacific Flush Tank Co., 184 La Salle St., Chicago, Ill.
Phillips, Richard H., Security Bldg., St. Louis, Mo.
Potts, Clyde, 30 Church St., New York.
Shone Co. 861 Blackhawk St., Chicago, Ill.
United Paving Co., Atlantic City, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Sewer Braces (See Trench Braces)

Sewer Buckets (See Buckets, Sewer)

Sewer Flushers (Automatic)

Barron & Cole Co., 127 Franklin St., N. Y.
Merritt & Co., 125 Front St., Camden, N. J.
Pacific Flush Tank Co., 184 La Salle St., Chicago, Ill.

Sewer Pipe (See Pipe, Vitrified Clay)

Shackles

Broderick & Bascom Rope Co., St. Louis, Mo.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.

Mention "Engineering Record" when writing.

Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Terry & Tench, New York.

Shafting

Allis-Chalmers Co., Milwaukee, Wis.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Carnegie Steel Co., Pittsburg, Pa.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St.,
Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Jones & Laughlin Steel Co. Pittsburg, Pa.
Platt Iron Works Co., Dayton, Ohio.
Power & Mining Machinery Co., Milwaukee, Wis.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., 2410 West 15th St., Chicago, Ill.

Shears (Angle and Beam)

Bertsch & Co., Cambridge City, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Fairbanks Co., New York & Chicago.
Pels & Co., Henry, 90 West St., New York.
Wiener Machinery Co., 50 Church St., New York.

Sheaves for Wire Rope (Hoisting)

Allis-Chalmers Co., Milwaukee, Wis.
American Hoist & Derrick Co., St. Paul, Minn.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co. H., Chicago, Ill.
Cockburn Barrow & Machine Co., 30 Church St., New
York.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Ellicott Machine Co., Bush & Severn Sts., Baltimore.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Flory Mfg. Co., S., Bangor, Pa.
Hunt Co., C. W., West New Brighton, N. Y.
Longenecker & Co., Chas. W., 150 Nassau St., New
York.
Patterson Co., W. W., Pittsburg, Pa.
Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Terry & Tench, New York.
Trenton Iron Co., Trenton, N. J.
Union Iron Works, Hoboken, N. J.
Vulcan Iron Works, Chicago, Ill.
Vulcan Iron Works, Wilkes-Barre, Pa.

Sheet Metal Work

Berger Mfg. Co., Canton, Ohio.
Cockburn Barrow & Machine Co., 30 Church St., New
York.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Janney, Steinmetz & Co., Philadelphia, Pa.
Leader Foundry & Machine Co., Quincy, Ill.
Lupton's Sons Co., David, Allegheny Ave. & Witte St.,
Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Mullins Co., W. H., Salem, Ohio.
Petroleum Iron Works Co., Sharon, Pa.
Pullman Automatic Ventilator Mfg. Co., York, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Stuebner Iron Works, G. L., Ft. of 12th St., L. I. City,
New York.
Whitehead & Kales Iron Works, Beecher Ave. & M. C.
R. R., Detroit, Mich.

Mention "Engineering Record" when writing.

Sheets (Galvanized)

American Rolling Mill Co., Middletown, Ohio.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Garry Iron & Steel Co., Cleveland, Ohio.
Inland Steel Co., Chicago, Ill.
Milliken Bros., Milliken, N. Y.
Riverside Bridge Co., Martin's Ferry, Ohio.

Sheets (Iron and Steel)

American Rolling Mill Co., Middleton, Ohio.
Asbestos Protected Metal Co., Canton, Mass.
Berger Mfg. Co., Canton, Ohio.
Clinton Bridge & Iron Works, Clinton, Iowa.
Garry Iron & Steel Co., Cleveland, Ohio.
Inland Steel Co., Chicago, Ill.
Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chicago, Ill.
Lackawanna Steel Co., 2 Rector St., New York.
Milliken Bros., Milliken, N. Y.
Riverside Bridge Co., Martin's Ferry, Ohio.
Whitehead & Kales Iron Works, Beecher Ave. & M. C. R. R., Detroit, Mich.

Sheets (Roofing)

American Rolling Mill Co., Middletown, Ohio.
Asbestos Protected Metal Co., Canton, Mass.
Berger Mfg. Co., Canton, Ohio.
Garry Iron & Steel Co., Cleveland, Ohio.
Inland Steel Co., Chicago, Ill.
Johns-Manville Co., H. W., 100 William St., New York.
Riverside Bridge Co., Martin's Ferry, Ohio.

Shoring and Underpinning

Foundation Co., 115 Broadway, New York.
Underpinning Co., 290 Broadway, New York.

Shovels and Picks (Hand)

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Fairbanks, Morse & Co., Chicago, Ill.
Inter-State Equipment & Engineering Co., 1775 Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Obermayer Co., S., Cincinnati, Ohio.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

Shovels, Steam (See Also Excavating Machinery)

Atlantic Equipment Co., 30 Church St., New York.
Bellefontaine Foundry & Machine Co., Bellefontaine, O.
Bucyrus Co., South Milwaukee, Wis.
Marion Steam Shovel Co., Marion, Ohio.
Thew Automatic Shovel Co., Lorain, Ohio.
Souther & Co., John, Box 3118, Boston, Mass.

Shutters (Rolling)

Milliken Bros., Milliken, N. Y.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Wilson Mfg. Co., J. G., New York.

Sidewalk and Vault Lights (See Lights, Sidewalk)

Mention "Engineering Record" when writing.

Sidewalks

Aberthaw Construction Co., Boston, Mass.
Ash, John Wm., Austell, Ga.
Blome Co., R. S., Unity Bldg., Chicago, Ill.
Carey Construction Co., 211 Lennox Bldg., Cleveland.
Cuozzo, Donato, Park Row Bldg., New York.
Eastern Asphalt Supply Co., 115 Broadway, New York.

Skips

Allis-Chalmers Co., Milwaukee, Wis.
Channon Co., H., Chicago, Ill.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machinery Co., Niagara Falls, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Mitchell & Tappen, 122 Liberty St., New York.
New York Cableway & Engineering Co., 2 Rector St., New York.
Power & Mining Machinery Co., Milwaukee, Wis.
Tippett & Wood, Phillipsburg, N. J.
Union Iron Works, Hoboken, N. J.
Warner Co., Charles, Wilmington, Del.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Williams Co., G. H., 1513 Rockefeller Bldg., Cleveland.

Skylights (See Also Lights, Sidewalk and Vault)

American Luxfer Prism Co., 42 Madison St., Chicago.
Burt Mfg. Co., Akron, Ohio.
Drouve Co., G., Bridgeport, Conn.
Lupton's Sons Co., David, Allegheny Ave. & Witte St., Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Mullins Co., W. H., Salem, Ohio.
National Ventilating Co., 337 East 26th St., New York.
Pullman Automatic Ventilator Mfg. Co., York, Pa.

Slag

Warner Charles Co., Wilmington, Del.

Sluice Gates

Allis-Chalmers Co., Milwaukee, Wis.
American Spiral Pipe Works, Chicago, Ill.
Coldwell-Wilcox Co., Newburgh, N. Y.
Chapman Valve Mfg. Co., Indian Orchard, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cockburn Barrow & Machine Co. 30 Church St., New York.
Coffin Valve Co., Neponset, Boston, Mass.
Fox & Co., John, 253 Broadway, New York.
Merritt & Co., 125 Front St., Camden, N. J.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Pittsburg Mfg. Co., Pittsburg, Pa.

Snow Plows

American Locomotive Co., 30 Church St., New York.
Barron & Cole Co., 127 Franklin St., New York.

Sockets

Allis-Chalmers Co., Milwaukee, Wis.
Broderick & Bascom Rope Co., St. Louis, Mo.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Johns-Manville Co., H. W., 100 William St., New York.
Raymond Bros., Impact Pulverizer Co., 1500 Harrison St., Chicago, Ill.

Mention "Engineering Record" when writing.

Speaking Tubes

Berger Mfg. Co., Canton, Ohio.
Ostrander Co., W. R., 22 Dey St., New York.

Specifications (See Books)

Spikes (Railroad)

Channon Co., H., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburg, Pa.
McCoy Co., Henry J., 65-67 Dey St., New York.
Wiener Co., Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
St. Louis, Mo.

Sprinkling Carts (See Street Sprinklers)

Stacks (See Chimneys)

Stairs (Spiral)

Belmont Iron Works, Philadelphia, Pa.
Burr, E. M., Champaign, Ill.
Milliken Bros., Milliken, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Schreiber & Sons Co., L., Cincinnati, Ohio.
Whitehead & Kales Iron Works, Beecher Ave. & M. C.
R. R., Detroit, Mich.

Standpipes, Tanks, Towers

Abenague Machine Works, Westminster Station, Vt.
Alberthaw Construction Co., Boston, Mass.
American Bridge Co., 30 Church Ct., New York.
Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
Belmont Iron Works, Philadelphia, Pa.
Chicago Bridge & Iron Works, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Iowa.
Cockburn Barrow & Machine Co., 30 Church St., New
York.
Concrete-Steel Engrg. Co., Park Row Bldg., New York.
Davis, G. M., Palatka, Fla.
Des Moines Bridge & Iron Co., Des Moines, Iowa.
Fairbanks, Morse & Co., Chicago, Ill.
Flint & Walling Mfg. Co., Kendallville, Ind.
Graver Tank Works, Wm., East Chicago, Ind.
Hughes, Steeple Jack, 21 Walcott St., Brooklyn, N. Y.
Janney, Steinmetz & Co., Philadelphia, Pa.
Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chi-
cago, Ill.
Kratzer & Co., W. N., Pittsburg, Pa.
Lackawanna Bridge Co., 50 Church St., New York.
Lake Erie Engineering Works, Buffalo, N. Y.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Milliken Bros., Milliken, N. Y.
Minneapolis Steel & Machinery Co., 2854 Minnehaha
Ave., Minneapolis, Minn.
Mitchell & Tappen, 122 Liberty St., New York.
Murray Iron Works, Burlington, Iowa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Penn Bridge Co., Beaver Falls, Pa.
Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Portland Wood Pipe Co., Portland, Ore.
Rider-Ericsson Engine Co., 35 Warren St., New York.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Riverside Bridge Co., Martin's Ferry, Ohio.

Mention "Engineering Record" when writing.

Scaife & Sons Co., Wm. B., Pittsburg, Pa.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Sharon Boiler Works, Florida St., Sharon, Pa.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadelphia, Pa.
 Struthers-Wells Co., Warren, Pa.
 Terry & Tench, New York.
 Tippet & Wood, Phillipsburg, N. J.
 Treadwell Construction Co., Midland, Pa.
 Union Iron Works, Hoboken, N. J.
 U. S. Wind Engine & Pump Co., Batavia, Ill.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C. R. R., Detroit, Mich.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Steam Specialties

American Blower Co. Detroit, Mich.
 American District Steam Co., Lockport, N. Y.
 American Injector Co., Detroit, Mich.
 American Steam Gauge & Valve Mfg. Co., 208-220 Camden St., Boston, Mass.
 Ashton Valve Co., 271 Franklin St., Boston, Mass.
 Baldwin, Wm. J., World Bldg., New York.
 Builders Material Supply Co., 301-305 Scarritt Bldg., Kansas City, Mo.
 Channon Co., H., Chicago, Ill.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Foster Engineering Co. Newark, N. J.
 Lunkenheimer Co., Cincinnati, Ohio.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Powell Co., Wm., Cincinnati, Ohio.
 Sturtevant Co., B. F., Hyde Park, Mass.
 Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
 Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

Steamboat Ratchets

Patterson Co., W. W., Pittsburg, Pa.
 Pittsburg Block & Mfg. Co., 818 South Ave., Pittsburg.

Steel Plate Construction

American Bridge Co., 30 Church St., New York.
 Atkinson Co., Wm. H., Hudson River at 7th St., Hoboken, N. J.
 Berger Mfg. Co., Canton, Ohio.
 Berlin Construction Co., Berlin, Conn.
 Chicago Bridge & Iron Works, Chicago, Ill.
 Cockburn Barrow & Machine Co., 30 Church St., New York.
 East Jersey Pipe Co., 50 Church St., New York.
 Graver Tank Works, Wm., East Chicago, Ind.
 Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chicago, Ill.
 Lackawanna Bridge Co., 50 Church St., New York.
 Lake Erie Engineering Works, Buffalo, N. Y.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 McNeil & Bros., James, Pittsburg, Pa.
 Milliken Bros., Milliken, N. Y.
 Minneapolis Steel & Machinery Co., 2584 Minnehaha Ave., Minneapolis, Minn.
 Mitchell & Tappen, 122 Liberty St., New York.
 Oregonia Bridge Co., Lebanon, Ohio.
 Petroleum Iron Works Co., Sharon, Pa.

Mention "Engineering Record" when writing.

Riter-Conley Mfg. Co., Pittsburg, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Sharon Boiler Works, Florida St., Sharon, Pa.
 Smith & Son Co., Samuel, Paterson, N. J.
 Struthers-Wells Co., Warren, Pa.
 Tippet & Wood, Phillipsburg, N. J.
 Treadwell Construction Co., Midland, Pa.
 Union Iron Works, Hoboken, N. J.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C.
 R. R., Detroit, Mich.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Steel (Reinforcing, (See Reinforcement Steel for Concrete Structures)

Steel Ribs and Lagging (See Also Centers)

Belmont Iron Works, Philadelphia, Pa.
 Blaw Collapsible Steel Centering Co., 710 Westinghouse Bldg., Pittsburg, Pa.
 Carnegie Steel Co., Pittsburg, Pa.
 Jackson, Geo. W., 754-756 Jackson Bvd., Chicago, Ill.

Steel Substructures for Tanks

American Bridge Co., 30 Church St., New York.
 Belmont Iron Works, Philadelphia, Pa.
 Boston Bridge Works, 47 Winter St., Boston, Mass.
 Chicago Bridge & Iron Works, Chicago, Ill.
 Des Moines Bridge & Iron Co., Des Moines, Iowa.
 Flint & Walling Mfg. Co., Kendallville, Ind.
 Graver Tank Works, Wm., East Chicago, Ind.
 Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chicago, Ill.
 Lackawanna Bridge Co., 50 Church St., New York.
 Oregonia Bridge Co., Lebanon, Ohio.
 Penn Bridge Co., Beaver Falls, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Sharon Boiler Works, Florida St., Sharon, Pa.
 Tippet & Wood Phillipsburg, N. J.
 Treadwell Construction Co., Midland, Pa.
 U. S. Wind Engine & Pump Co., Batavia, Ill.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C.
 R. R., Detroit, Mich.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Stokers (Mechanical)

American Ship Windlass Co., Providence, R. I.
 Babcock & Wilcox Co., 85 Liberty St., New York.
 Green Engineering Co., Chicago, Ill.
 Murphy Iron Works, Detroit, Mich.
 Westinghouse Machine Co., Pittsburg, Pa.

Stone (Broken and Quarried)

Kettle River Quarries Co., Minneapolis, Minn.
 Rockport Granite Co., Rockport, N. Y.
 Warner Co., Charles, Wilmington, Del.

Stone Dressing Machines

Ingersoll-Rand Co., 11 Broadway, New York.
 Sullivan Machinery Co., 150 Michigan Ave., Chicago, Ill.
 Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Mention "Engineering Record" when writing.

Straightening Machines, Angle, Beam and Channel, (See Bending, Straightening and Punching Machines)

Strainers (Pump)

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Channon Co., H., Chicago, Ill.
Emerson Steam Pump Co., Alexandria, Va.
Epping-Carpenter Co., Pittsburg, Pa.
International Steam Pump Co., 115 Broadway, New York.

Strainers (Well)

Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.

Street-Cleaning Tools, Sweepers, Etc.

Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Good Roads Machinery Co., Kennett Sq., Pa.
Studebaker Bros. Mfg. Co., So. Bend, Ind.

Street Sprinklers and Wagon

Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Good Roads Machinery Co., Kennett Sq., Pa.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Studebaker Bros. Mfg. Co., So. Bend, Ind.

Street Sprinklers (Oil)

American Tar Co., Boston, Mass.
Barron & Cole Co., 127 Franklin St., New York.
Longenecker & Co., Chas. W., 150 Nassau St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Studebaker Bros. Mfg. Co., So. Bend, Ind.

**Structural and Ornamental Iron Works
(See Ironwork, Architectural and Ornamental)**

Structural Steel (See Also Bridges, Roofs, Etc.)

American Bridge Co., 30 Church St., New York.
Baltimore Bridge Co., Baltimore, Md.
Berlin Construction Co., Berlin, Conn.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Buffalo Steel Co., Tonawanda, N. Y.
Burger Iron Co., Akron, Ohio.
Carnegie Steel Co., Pittsburg, Pa.
Central States Bridge Co., Indianapolis, Ind.
Champion Bridge Co., Wilmington, Ohio.
Chicago Bridge & Iron Works, Chicago, Ill.
Clinton Bridge & Iron Works, Clinton, Iowa.
Cockburn Barrow & Machine Co., 30 Church St., New York.
Des Moines Bridge & Iron Co., Des Moines, Iowa.
Franklin Steel Co., Franklin, Pa.
Hudson Structural Steel Co., 136th St. & So. Bvd., New York.
Inland Steel Co., Chicago, Ill.
Jackson, Geo. W., 754-756 Jackson Bvd., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburg, Pa.
Kenwood Bridge Co., 1416 First Nat. Bank Bldg., Chicago, Ill.
King Bridge Co., Cleveland, Ohio.

Mention "Engineering Record" when writing.

Kratzer & Co., W. N., Pittsburg, Pa.
 Lackawanna Bridge Co., 50 Church St., New York.
 Lackawanna Steel Co., 2 Rector St., New York.
 Lake Erie Engineering Works, Cor. of Chicago & Perry
 Sts., Buffalo, N. Y.
 Milliken Bros., Milliken, N. Y.
 Milwaukee Bridge Co., Milwaukee, Wis.
 Minneapolis Steel & Machinery Co., 2854 Minnehaha
 Ave., Minneapolis, Minn.
 Mitchell & Tappen, 122 Liberty St., New York.
 Noelke Richards Iron Works, Indianapolis, Ind.
 Oregonia Bridge Co., Lebanon, Ohio.
 Penn Bridge Co., Beaver Falls, Pa.
 Pennsylvania Steel Co., Steelton, Pa.
 Phoenix Bridge Co., 410 Walnut St., Philadelphia, Pa.
 Riter-Conley Mfg. Co., Pittsburg, Pa.
 Riverside Bridge Co., Martin's Ferry, Ohio.
 Russel Wheel & Foundry Co., Detroit, Mich.
 Schreiber & Sons Co., L., Cincinnati, Ohio.
 Shoemaker & Co., Lewis F., Harrison Bldg., Philadel-
 phia, Pa.
 Snare & Triest Co., 143 Liberty St., New York.
 Steel Roof Truss Co., 618 New Bank of Com. Bldg., St.
 Louis, Mo.
 Terry & Tench, New York.
 Tippet & Wood, Phillipsburg, N. J.
 Virginia Bridge & Iron Co., Roanoke, Va.
 Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
 Whitehead & Kales Iron Works, Beecher Ave. & M. C.
 R. R., Detroit, Mich.
 Wisconsin Bridge & Iron Co., 605 Colby Abott Bldg.,
 Milwaukee, Wis.
 Worden-Allen Co., 115 Adams St., Chicago, Ill.

Stucco (See Cement)

Sugar Mill Machinery

Buffalo Forge Co., Buffalo, N. Y.
 Coldwell-Wilcox Co., Newburg, N. Y.
 D'Olier Engineering Co., 119-121 So. 11th St., Philadel-
 phia, Pa.
 Lake Erie Engineering Works, Cor. of Chicago & Perry
 Sts., Buffalo, N. Y.
 Prosser & Son, Thos., 15 Gold St., New York.
 Pulsometer Steam Pump Co., 16 Battery Pl., New York.
 Raymond Bros. Impact Pulverizer Co., 1500 Harrison
 St., Chicago, Ill.

Sulphate of Iron

American Steel & Wire Co., 115 Adams St., Chicago, Ill.

Superheaters

Babcock & Wilcox Co., 85 Liberty St., New York.
 Parker Boiler Co., Pennsylvania Bldg., Philadelphia, Pa.
 Power Specialty Co., 111 Broadway, New York.

Switchboards

Allis-Chalmers Co., Milwaukee, Wis.
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Switch Stands and Switches (See Frogs and Switches)

Tanks and Towers (See Standpipes, Tanks, Towers)

Mention "Engineering Record" when writing.

Tanks (Air Compressors)

Abenaque Machine Works, Westminster Station, Vt.
Allis-Chalmers Co., Milwaukee, Wis.
American Air Compressor Works, 26 Cortlandt St., New York.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.
East Jersey Pipe Co., 50 Church St., New York.
Fairbanks, Morse & Co., Chicago, Ill.
Graves Tank Works, Wm., East Chicago, Ind.
Hush, H. J., 39-41 Cortlandt St., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
Janney, Steinmetz & Co., Philadelphia, Pa.
Kewanee Boiler Co., Kewanee, Ill.
Lake Erie Engineering Works, Buffalo, N. Y.
Manitowoc Boiler Works Co., Manitowoc, Wis.
Marine Metal & Supply Co., 167 South St., New York.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
McNeil & Bros., James, Pittsburg, Pa.
Minneapolis Steel & Machinery Co., 2854 Minnehaha Ave., Minneapolis, Minn.
Murray Iron Works, Burlington, Iowa.
Phoenix Iron Works Co., Meadville, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Smith & Son Co., Samuel, Paterson, N. J.
Tippett & Wood, Phillipsburg, N. J.
Treadwell Construction Co., Midland, Pa.
Walsh's Holyoke Steam Boiler Works, Holyoke, Mass.
Wickes Bros., 90 West St., New York.

Tanks (Condenser)

Allis-Chalmers Co., Milwaukee, Wis.
Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.
Graver Tank Works, Wm., East Chicago, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Phoenix Iron Works Co., Meadville, Pa.
Riter-Conley Mfg. Co., Pittsburg, Pa.
Scaife & Sons Co., Wm. B., Pittsburg, Pa.
Sharon Boiler Works, Florida St., Sharon, Pa.
Treadwell Construction Co., Midland, Pa.

Tanks (Creosoting)

Allis-Chalmers Co., Milwaukee, Wis.
Carroll-Porter Boiler & Tank Co., 907 Empire Bldg., Pittsburg, Pa.
Graver Tank Works, Wm., East Chicago, Ind.
Lake Erie Engineering Works, Buffalo, N. Y.
Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Power & Mining Machinery Co., Milwaukee, Wis.
Riter-Conley Mfg. Co., Pittsburg, Pa.

Tanks (Flush)

Ansonia Mfg. Co., 30 Church St., New York.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cresson Co., Geo. V., Allegheny Ave., West of 17th St., Philadelphia, Pa.
Graver Tank Works, Wm., East Chicago, Ind.
Janney, Steinmetz & Co., Philadelphia, Pa.
Johns-Manville Co., H. W., 100 William St., New York.

Mention "Engineering Record" when writing.

Merritt & Co., 125 Front St., Camden, N. J.
Pacific Flush Tank Co., 184 La Salle St., Chicago, Ill.
Phoenix Iron Works Co., Meadville, Pa.

Tanks, Gas (See Gas Holders)

Tanks (Wooden)

Abenague Machine Works, Westminster Station, Vt.
Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
Chicago Bridge & Iron Works, Chicago, Ill.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Davis, G. M., Palatka Fla.
Fairbanks, Morse & Co., Chicago, Ill.
Flint & Walling Mfg. Co., Kendallville, Ind.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Portland Wood Pipe Co., Portland, Ore.
Rider-Ericsson Engine Co., 35 Warren St., New York.
United States Equipment Co., 1201 Fisher Bldg., Chicago Ill.
U. S. Wind Engine & Pump Co., Batavia, Ill.

Tapes, Steel (See Engineers' and Surveyors' Instruments and Supplies, also Rules and Tapes)

Tapping Machines (See Pipe Taping Machines)

Tar (See Also Paving Joint Filler)

American Tar Co., Malden Station, Boston, Mass.
Barrett Mfg. Co., 17 Battery Pl., New York.
Lackawanna Steel Co., 2 Rector St., New York.

Tees (See Structural Steel)

Terra Cotta (Fireproofing)

Evens & Howard Fire Brick Co., St. Louis, Mo.
National Fireproofing Co., Pittsburg, Pa.
Warner Co., Charles, Wilmington, Del.

Testing Laboratories (Chemists, Etc.)

Conard, Wm. R., 322 High St., Burlington, N. J.
Dow & Smith, 24 East 21st St., New York.
Fidelity Engineering & Inspecting Co., 30 Church St., New York.
Gulick Henderson & Co., 439 3d Ave., Pittsburg, Pa.
Hallet, Nelson A., 1 Ashburton Pl., Boston, Mass.
Hunt & Co., Robt. W., Monongahela Bank Bldg., Pittsburg, Pa.
Lehigh Valley Testing Laboratories, Allentown, Pa.
Love, E. G., 122 Broadway, New York.

Testing Machines

Architects' & Engineers' Supply Co., 1010 Grand Ave., Kansas City, Mo.
Fairbanks Co., New York & Chicago.
Fairbanks, Morse & Co., Chicago, Ill.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Kent Mill Co., 170 Broadway, New York.
Power & Mining Machinery Co., Milwaukee, Wis.
Prosser & Son, Thos., 15 Gold St., New York.
Raymond Bros. Impact Pulverizer Co., Chicago, Ill.
Sturtevant Mill Co., Harrison Sq., Boston, Mass.
Vulcan Iron Works, Wilkes-Barre, Pa.
Williams Patent Crusher & Pulverizer Co., Chicago, Ill.

Thermit

Goldschmidt Thermit Co., 90 West St., New York.

Mention "Engineering Record" when writing.

Thimbles (Wire Rope)

American Hoist & Derrick Co., St. Paul, Minn.
American Steel & Wire Co., 115 Adams St., Chicago, Ill.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Broderick & Bascom Rope Co., St. Louis, Mo.
Channon Co., H., Chicago, Ill.
Leschen & Sons Rope Co., St. Louis, Mo.
Patterson Co., W. W., Pittsburg, Pa.
Roebbling's Sons Co., John A., Trenton, N. J.

Ties (Steel and Wood)

Carnegie Steel Co., Pittsburg, Pa.
Gulfport Creosoting Co., Gulfport, Miss.
Wyckoff Pipe & Creosoting Co., 50 Church St., N. Y.
Zelnicker Supply Co., St. Louis, Mo.

Tile

Blackmer & Post Pipe Co., St. Louis, Mo.
Davenport Brick & Tile Co., 226 W. 3d St., Davenport,
Iowa.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Harbison-Walker Refractories Co., Pittsburg, Pa.
N. Y. State Sewer Pipe Co., Rochester, N. Y.
Trussed Concrete Steel Co., Detroit, Mich.

Tipples and Bunkers (See Coal Tipples)

Towers and Tanks (See Standpipes, Etc.; Also Steel Substructures for Tanks)

Track (Cast-Iron Plate)

Hunt Co., C. W., West New Brighton, N. Y.
Leader Foundry & Machine Co., Quincy Ill.
Union Iron Works Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Track, Portable (See Rails and Track)

Track Tools

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Channon Co. H., Chicago, Ill.
Fairbanks, Morse & Co., Chicago, Ill.
Union Iron Works, Hoboken, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston Mass.
Wiener Co. Ernst, 470 Hudson Terminal, New York.
Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
St. Louis, Mo.

Traction Ditching Machines (See Also Trench Excavating Machinery)

Buckeye Traction Ditcher Co. Findlay, Ohio.
Parsons Co., G. T., Newton, Iowa.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
St. Paul Ditcher & Carrier Co., St. Paul, Minn.

Tramways, Wire Rope (See Cableways)

Transits (See Also Engineers' Instruments)

Ainsworth & Son, William, Denver, Col.
Bausch & Lomb Optical Co., Rochester, N. Y.
Berger & Son, C. L., Boston, Mass.
Iszard-Warren Co., 136 W. No. 12th St., Philadelphia, Pa.
Keuffel & Esser Co., Hoboken, N. J.
Kolesch & Co., 138 Fulton St., New York.

Mention "Engineering Record" when writing.

Transmission Rope (See Rope, Transmission Power)

Transmission Towers (Steel)

American Bridge Co., 30 Church St., New York.
Milliken Bros., Milliken, N. Y.
Riter-Conley Mfg. Co., Pittsburg, Pa.
U. S. Wind Engine & Pump Co., Batavia, Ill.
Wisconsin Bridge & Iron Co., 605 Colby-Abott Bldg.,
Milwaukee, Wis.
Worden-Allen Co., 115 Adams St., Chicago, Ill.

Traps (Steam)

American Blower Co., Detroit, Mich.
American District Steam Co., Lockport, N. Y.
American Radiator Co., New York & Chicago.
Jenkins Bros., New York.
Sturtevant Co., B. F., Hyde Park, Mass.

Tree Guards (Iron)

Anchor Post Iron Works, 15 Church St., New York.
Belmont Iron Works, Philadelphia, Pa.

Trench Braces

Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Bottomley Machine Co., Alliance, Ohio.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Contractors' Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dunn Mfg. Co., Pittsburg, Pa.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.

Trench Excavating Machinery

Austin Drainage Excavator Co., F. C., Railway Exchange, Chicago.
Barron & Cole Co., 127 Franklin St., New York.
Buckeye Traction Ditcher Co., Findlay, Ohio.
Carson Trench Machine Co., 16 Dorrance St., Boston.
Channon Co., H., Chicago, Ill.
Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
Hayward Co., 50 Church St., New York.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Marion Steam Shovel Co., Marion, Ohio.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Municipal Engrg. & Contracting Co., 607-611 Ry. Exchange, Chicago, Ill.
New York Cableway & Engineering Co., 2 Rector St.,
New York.
Parsons Co., G. T., Newton, Iowa.
Pulsometer Steam Pump Co., 16 Battery Pl., New York.
St. Paul Ditcher & Carrier Co., St. Paul, Minn.
Thew Automatic Shovel Co., Lorain, Ohio.
Union Iron Works, Hoboken, N. J.
United States Equipment Co., 1201 Fisher Bldg., Chicago.

Trolleys

Fairbanks Co., New York & Chicago.
General Electric Co., Schenectady, N. Y.
Hunt Co., C. W., West New Brighton, N. Y.
Union Iron Works, Hoboken, N. J.

Trucks (Factory and Warehouse)

Sterling Wheelbarrow Co., West Allis, Wis.
Whitehead & Kales Iron Works, Beecher Ave. & M.
C. R. R., Detroit, Mich.

Mention "Engineering Record" when writing.

Tube Mills

Allis-Chalmers Co., Milwaukee, Wis.
Power & Mining Machinery Co., Milwaukee, Wis.
Prosser & Son, Thos., 15 Gold St., New York.

Tubes, Boiler (See Boiler Tubes)

Turbine Pumps (See Pumps Turbine)

Turbines (Hydraulic)

Allis-Chalmers Co., Milwaukee, Wis.
D'Olier Engineering Co., 119-121 S. 11th St., Phila., Pa.
Leffel & Co., Jas., Springfield, Ohio.
Morris Co., I. P., Philadelphia, Pa.
Platt Iron Works Co., Dayton, Ohio.
Smith Co., S. Morgan, York, Pa.

Turbines (Steam)

Alberger Condenser Co., 140 Cedar St., New York.
Alberger Pump Co., 140 Cedar St., New York.
Allis-Chalmers Co., Milwaukee, Wis.
De Laval Steam Turbine Co., Trenton, N. J.
General Electric Co., Schenectady, N. Y.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Machine Co., Pittsburg, Pa.

Turnbuckles

American Bridge Co., 30 Church St., New York.
Broderick & Bascom Rope Co., St. Louis, Mo.
Cleveland City Forge & Iron Co., Cleveland, Ohio.
Leschen & Sons' Rope Co., St. Louis, Mo.
Maine Electric Co., Portland, Me.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Milliken Bros., Milliken, New York.
Roebblings Sons Co., J. A., Trenton, N. J.
Pittsburg Mfg. Co., Pittsburg, Pa.
Standard Scale & Supply Co., 50 & 52 S. Canal St.,
Chicago, Ill.
Terry & Tench, New York.

Turntables

American Bridge Co., 30 Church St., New York.
Boston Bridge Works, 47 Winter St., Boston, Mass.
Chicago Bridge & Iron Works, Chicago, Ill.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt Co., C. W., West New Brighton N. Y.
King Bridge Co., Cleveland, Ohio.
Orenstein-Arthur Koppel Co., Pittsburg, Pa.
Pennsylvania Steel Co., Steelton, Pa.
Peteler Car Co., Minneapolis, Minn.
Virginia Bridge & Iron Co., Roanoke, Va.
Weiner Co., Ernst, 470 Hudson Terminal, New York.
Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
Milwaukee, Wis.

Turntables (Overhead)

American Bridge Co., 30 Church St., New York.
Pennsylvania Steel Co., Steelton, Pa.
Wisconsin Bridge & Iron Co., 605 Colby-Abbott Bldg.,
Milwaukee, Wis.

Twine (Jute)

Channon Co., H., Chicago, Ill.
Leadite Co., Inc., Land Title Bldg., Philadelphia, Pa.
Wood Drill Co., Paterson, N. J.

Mention "Engineering Record" when writing.

Valves (Air)

American District Steam Co., Lockport, N. Y.
American Steam Gauge & Valve Mfg. Co., 208-220
Camden St., Boston, Mass.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Chapman Valve Mfg. Co., Indian Orchard, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Fairbanks Co., New York & Chicago.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Jenkins Bros., New York.
Merritt & Co., 125 Front St., Camden, N. J.
Monarch Valve & Mfg. Co., 476 Main St., Springfield,
Mass.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Powell Co., Wm., Cincinnati, Ohio.
Rensselaer Mfg. Co., Troy, N. Y.
Revere Rubber Co., Boston, Mass.
Smith Co., H. B., Westfield, Mass.

Valves (Angle, Check, Gate and Globe)

American Steam Gauge & Valve Mfg. Co., 200-220 Cam-
den St., Boston, Mass.
Coldwell-Wilcox Co., Newburgh, N. Y.
Coffin Valve Co., Neponset, Boston, Mass.
Fairbanks Co., New York & Chicago.
Fox & Co., John, 253 Broadway, New York.
Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
Jenkins Bros., New York.
Kellogg Co., M. W., 50 Church St., New York.
Lunkenheimer Co., Cincinnati, Ohio.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Monarch Valve & Mfg. Co., 476 Main St., Springfield,
Mass.
National Valve & Mfg. Co., Pittsburg, Pa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Pittsburg Mfg. Co., Pittsburg, Pa.
Powell Co., Wm., Cincinnati, Ohio.
Rensselaer Mfg. Co., Troy, N. Y.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Valves (Blow-off)

American Steam Gauge & Valve Mfg. Co., 208-220
Camden St., Boston, Mass.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Coldwell-Wilcox Company, Newburgh, N. Y.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Fairbanks Co., New York & Chicago.
Jenkins Bros., New York.
Lunkenheimer Co., Cincinnati, Ohio.
Monarch Valve & Mfg. Co., 476 Main St., Springfield,
Mass.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Powell Co., Wm., Cincinnati, Ohio.
Walworth Mfg. Co., 128 & 136 Federal St., Boston, Mass.

Valves (Foot)

Allen, John F., 370-372 Gerard Ave., New York.
American Spiral Pipe Works, Chicago, Ill.
American Steam Gauge & Valve Mfg. Co., 208-220
Camden St., Boston, Mass.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston, Mass.
Boston Belting Co., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.

Mention "Engineering Record" when writing.

Coffin Valve Co., Neponset, Boston, Mass.
 Emerson Steam Pump Co., Alexandria, Va.
 Erie Pump & Engine Works, Erie, Pa.
 Fairbanks Co., New York & Chicago.
 Fox & Co., John, 253 Broadway, New York.
 McCoy Co., Henry J., 65 & 67 Dey St., New York.
 Monarch Valve & Mfg. Co., 476 Main St., Springfield, Mass.
 Revere Rubber Co., Boston, Mass.
 Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
 Wood & Co., R. D., 400 Chestnut St., Philadelphia, Pa.

Valves (Pressure Reducing)

American District Steam Co., Lockport, N. Y.
 American Steam Gauge & Valve Mfg. Co., 208-220 Camden St., Boston, Mass.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Fairbanks Co., New York & Chicago.
 Foster Engineering Co., Newark, N. J.
 Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
 Jenkins Bros., New York.
 Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Valves (Pump)

Advance Pump & Compressor Co., Battle Creek, Mich.
 American Steam Gauge & Valve Mfg. Co., 208-220 Camden St., Boston, Mass.
 Boston Belting Co., Boston, Mass.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Dow Pumping Engine Co., Geo. E., 179 First St., San Francisco, Cal.
 Emerson Steam Pump Co., Alexandria, Va.
 Epping-Carpenter Co., Pittsburg, Pa.
 Foster Engineering Co., Newark, N. J.
 Goodrich Co., B. F., Akron, Ohio.
 Jenkins Bros., New York.
 Revere Rubber Co., Boston, Mass.
 Worthington, Henry R., 115 Broadway, New York.

Valves (Regulating)

American District Steam Co., Lockport, N. Y.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Fairbanks Co., New York & Chicago.
 Foster Engineering Co., Newark, N. J.
 Jenkins Bros., New York.
 Seagrave, F. S., 89 Smith Ave., Detroit, Mich.
 Simplex Valve & Meter Co., Philadelphia, Pa.
 Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Valves (Safety)

Allis-Chalmers Co., Milwaukee, Wis.
 American Steam Gauge & Valve Mfg. Co., 208-220 Camden St., Boston, Mass.
 Ashton Valve Co., 271 Franklin St., Boston, Mass.
 Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
 Fairbanks Co., New York & Chicago.
 Gurney Heater Mfg. Co., 188 Franklin St., Boston, Mass.
 Jenkins Bros., New York.
 Lunkenheimer Co., Cincinnati, Ohio.
 McDowell & Co., Grant & Western Aves., Allegheny, Pa.
 Powell Co., Wm., Cincinnati, Ohio.
 Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Valves (Sluice)

American Spiral Pipe Works, Chicago, Ill.
 Coldwell-Wilcox Co., Newburgh, N. Y.

Mention "Engineering Record" when writing.

Chapman Valve Mfg. Co., Indian Orchard, Mass.
Clow & Son, James B., 342 Franklin St., Chicago, Ill.
Coffin Valve Co., Neponset, Boston, Mass.
Fairbanks Co., New York & Chicago.
Fox, & Co., John, 253 Broadway, New York.
Pittsburg Mfg. Co., Pittsburg, Pa.

Valves (Water Relief)

American Spiral Pipe Works, Chicago, Ill.
Ashton Valve Co., 271 Franklin St., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co., New York & Chicago.
Foster Engineering Co., Newark, N. J.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Ventilating Apparatus

Allis-Chalmers Co., Milwaukee, Wis.
American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
De Laval Steam Turbine Co., Trenton, N. J.
Drouve Co., G., Bridgeport, Conn.
Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.
Harrison Engineering Co., New York.
Lewis & Kitchen, 1200 Michigan Ave., Chicago, Ill.
Lord & Burnham Co., Irvington, N. Y.
National Ventilating Co., 337-339 E. 26th St., New York.
New York Blower Co., Chicago, Ill.
Pullman Auto Ventilator Mfg. Co., York, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.
Westinghouse Electric & Mfg. Co., Pittsburg, Pa.

Ventilating Apparatus (Sash Operating)

Baldwin, Wm. J., World Bldg., New York.
Builders Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Drouve Co., G., Bridgeport, Conn.
Hitchings & Co., Elizabeth, N. J.
Luptons Sons Co., David, Allegheny Ave & Witte St.,
Philadelphia, Pa.
National Ventilating Co., 337-339 E. 26th St., New York.
Pullman Automatic Ventilator Mfg. Co., York, Pa.

Ventilators

American Blower Co., Detroit, Mich.
Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Berger Mfg. Co., Canton, Ohio.
Buffalo Forge Co., Buffalo, N. Y.
Burt Mfg. Co., Akron, Ohio.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Lupton's Sons Co., David, Allegheny Ave & Witte St.,
Philadelphia, Pa.
National Ventilating Co., 337-339 E. 26th St., New York.
New York Blower Co., Chicago, Ill.
Pullman Automatic Ventilator Mfg. Co., York, Pa.
Sturtevant Co., B. F., Hyde Park, Mass.

Wagons (Ash)

Austin-Western Co., Ltd., Chicago, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Bond & Co., Harold L., 383-391 Atlantic Ave, Boston.
Columbia Wagon Co., Columbia, Penn.
Eagle Wagon Works, Auburn, N. Y.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Studebaker Bros. Mfg. Co., So. Bend, Ind.

Mention "Engineering Record" when writing.

Troy Wagon Works Co., South Walnut St., Troy, Ind.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Watson Wagon Co., Canastota, N. Y.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Wagons (Contractors')

Austin Mfg. Co., Chicago, Ill.
Austin-Western Co., Ltd., Chicago, Ill.
Avery Co., 984 Iowa St., Peoria, Ill.
Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Columbia Wagon Co., Columbia, Pa.
Eagle Wagon Works, Auburn, N. Y.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Studebaker Bros. Mfg. Co. So. Bend, Ind.
Troy Wagon Works Co., South Walnut St., Troy, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chicago.
Watson Wagon Co., Canastota, N. Y.

Wagons (Dumping)

Austin Mfg. Co., Chicago, Ill.
Austin-Western Co., Ltd., Chicago, Ill.
Avery Co., 984 Iowa St., Peoria, Ill.
Barron & Cole Co., 127 Franklin St., New York.
Bond Co., Harold L., 383-391 Atlantic Ave, Boston, Mass.
Buffalo Pitts Co., Buffalo, N. Y.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Case Threshing Machine Co., J. I., Racine, Wis.
Columbia Wagon Co., Columbia, Penn.
Eagle Wagon Works, Auburn, N. Y.
Hobbs-Ives Equipment & Machinery Co., Norfolk, Va.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
McCoy Co., Henry J., 65 and 67 Dey St., New York.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Studebaker Bros. Mfg. Co., So. Bend, Ind.
Troy Wagon Works Co., South Walnut St., Troy, Ohio.
United States Equipment Co., 1201 Fisher Bldg., Chi-
cago, Ill.
Watson Wagon Co., Canastota, N. Y.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Wagons (Garbage)

Eagle Wagon Works, Auburn, N. Y.
Edson Mfg. Co., 257 Atlantic Ave., Boston, Mass.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Studebaker Bros. Mfg. Co. So. Bend, Ind.
Troy Wagon Works Co., South Walnut St., Troy, Ohio.
Watson Wagon Co., Canastota, N. Y.
Whitehead & Kales Iron Works, Detroit, Mich.

Wagons (Ice and Asphalt)

Studebaker Bros. Mfg. Co., So. Bend, Ind.

Wagons (Oil)

Studebaker Bros. Mfg. Co., So. Bend, Ind.
Watson Wagon Co., Canastota, N. Y.

Wall Coping

Cannelton Sewer Pipe Co., Cannelton, Ind.
Eastern Clay Goods Co., 79 Milk St., Boston, Mass.
Evans & Howard Fire Brick Co., St. Louis, Mo.

Mention "Engineering Record" when writing.

N. Y. State Sewer Pipe Co., Rochester, N. Y.
Warner Co., Charles, Wilmington, Del.

Washers (Air)

Buffalo Forge Co., Buffalo, N. Y.
Mulconroy Co., 722 Arch St., Philadelphia, Pa.
New York Blower Co., Chicago, Ill.
Raymond Bros. Impact Pulverizer Co., 1500 Harrison
St., Chicago, Ill.
Revere Rubber Co., Boston, Mass.

Water Columns

Ashton Valve Co., 271 Franklin St., Boston, Mass.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Pacific Tank & Pipe Co., 318 Market St., San Francisco.
Powell Co., Wm., Cincinnati, Ohio.

Water-Main Cleaners

National Water Main Cleaning Co., 61 Park Row, New
York City.

Waterproofing

American Asphaltum & Rubber Co., 600-614 Harvester
Bldg., Chicago, Ill.
American Paint Mfg. Co., 41-47 Hollingsworth St., Mat-
tapan, Boston, Mass.
Antihydrine Co., 39 Church St., New Haven, Conn.
Barber Asphalt Paving Co., Land Title Bldg., Philadel-
phia, Pa.
Barrett Mfg. Co., 17 Battery Pl., New York.
Bird & Son, F. W., East Walpole, Mass.
Bird & Co., J. A. & W., Boston, Mass.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Ceresit Waterproofing Co., Chicago, Ill.
Eastern Asphalt Supply Co., 115 Broadway, New York.
Elaterite Paint & Mfg. Co., Des Moines, Iowa.
Girvan-Nachod Co., 1228 Locust St., Philadelphia, Pa.
Harrison Waterproofing Materials Co., 30 Church St.,
New York.
Horn Co., A. C., 8 Burling Slip, New York.
Hydrolithic Cement Co., 138 Jackson Blvd., Chicago, Ill.
Minwax Co. 1123 Broadway, New York.
Sicilian Asphalt Paving Co., 41 Park Row, New York.
Standard Asphalt & Rubber Co., 205 La Salle St., Chicago.
Texas Co., 17 Battery Pl., New York.
Trussed Concrete Steel Co., Detroit, Mich.
Warner Co., Charles, Wilmington, Del.
Waterproofing Co., 115 Broadway New York.

Waterproofing Cement and Concrete

Alsen American Portland Cement Works, 45 Broadway,
New York.
American Asphaltum & Rubber Co., 600-614 Harvester
Bldg., Chicago, Ill.
Antihydrine Co., 39 Church St., New Haven, Conn.
Barber Asphalt Paving Co. Land Title Bldg., Phila, Pa.
Bird & Co. J. A. & W., Boston, Mass.
Bird & Son, F. W., East Walpole, Mass.
Blome Co. R. S., Unity Bldg., Chicago Ill.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
Ceresit Waterproofing Co. Chicago, Ill.
Dexter Bros. Co. 105 Broad St., Boston, Mass.

Mention "Engineering Record" when writing.

Eastern Asphalt Supply Co., 115 Broadway, New York.
 Elaterite Paint & Mfg. Co., Des Moines, Iowa.
 Girvan-Nachod Co., 1228 Locust St., Philadelphia, Pa.
 Glidden Varnish Co., Cleveland, Ohio.
 Harrison Waterproofing Materials Co. 30 Church St.,
 New York.
 Horn Co., A. C., 8 Burling Slip, New York.
 Hydrolithic Cement Co., 138 Jackson Blvd., Chicago Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Minwax Co., 1123 Broadway, New York.
 Standard Asphalt & Rubber Co., 205 La Salle St., Chi-
 cago, Ill.
 Texas Co., 17 Battery Pl., New York.
 Toch Bros., 320 Fifth Ave., New York.
 Trussed Concrete Steel Co., Detroit, Mich.
 Warner Co., Charles, Wilmington, Del.
 Waterproofing Co., 115 Broadway, New York.

Waterproofing Compounds

American Cement Machinery Co. St. Louis, Mo.
 Antihydrine Co., 39 Church St., New Haven, Conn.
 Barber Asphalt Paving Co. Land Title Bldg., Phila. Pa.
 Bird & Son F. W., East Walpole, Mass.
 Bird & Co., J. A. & W., Boston Mass.
 Builders' Material Supply Co., 301-305 Scarritt Bldg.,
 Kansas City, Mo.
 Cabot, Inc., Samuel, 14 Oliver St., Boston, Mass.
 Ceresit Waterproofing Co. Chicago, Ill.
 Eastern Asphalt Supply Co. 115 Broadway, New York.
 Elaterite Paint Mfg. Co., Des Moines, Iowa.
 Girvan-Nachod Co., 1228 Locust St., Philadelphia, Pa.
 Glidden Varnish Co., Cleveland Ohio.
 Harrison Waterproofing Materials Co. 30 Church St.,
 New York.
 Horn Co., A. C., 8 Burling Slip, New York.
 Hydrolithic Cement Co., 128 Jackson Bvd., Chicago, Ill.
 Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
 Minwax Co., 1123 Broadway, New York.
 Standard Asphalt & Rubber Co., 205 La Salle St., Chi-
 cago Ill.
 Standard Paint Co., 100 William St., New York.
 Stocker & Co., William F., 34 W. 33d St., New York.
 Texas Co. 17 Battery Pl., New York.
 Toch Bros., 320 Fifth Ave. New York.
 Trussed Concrete Steel Co., Detroit, Mich.
 Warner Co., Charles, Wilmington, Del.
 Waterproofing Co., 115 Broadway, N. Y.

Water Softeners

Booth Co., L. M., 136 Liberty St., New York.
 Cockburn Barrow & Machine Co., 30 Church St., New
 York.
 Graver Tank Works, Wm., East Chicago, Ind.
 Kellogg Co., M. W., 50 Church St., New York.
 Northern Water Softener Co., Madison, Wis.
 Pittsburg Filter Mfg. Co., Pittsburg, Pa.
 Scaife & Sons Co., Wm. B., Pittsburg, Pa.
 Warner Co., Charles, Wilmington, Del.

Water Tanks (See Standpipes and Towers; Also Tanks, Wooden)

Water-Wheels (See Turbine, Hydraulic)

Waterworks (Air Pressure)

Abenague Machine Works, Westminster Station, Vt.
 Advance Pump & Compressor Co., Battle Creek, Mich.
 Allis-Chalmers Co., Milwaukee, Wis.

Mention "Engineering Record" when writing.

Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.

Hush, H. J., 39-41 Cortlandt St., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
Janney, Steinmetz & Co., Philadelphia, Pa.
Phillips & Worthington, 90 West St., New York.
Rider-Ericsson Engine Co., 35 Warren St., New York.
Roberts Filter Mfg. Co., Philadelphia, Pa.

Weighing Machinery (See Also Scales)

Chicago Scale Co., 1021 Jackson Blvd., Chicago, Ill.
Conveying Weigher Co., 92 West St., New York.
Standard Scale & Supply Co., 50 & 52 So. Canal St.,
Chicago, Ill.

Welding Processes

Davis-Bournonville Co., 90 West St., New York.
Goldschmidt Thermit Co., 92 West St., New York.
Kellogg Co., M. W., 50 Church St., New York.

Well-Drilling Machinery

American Well Works, Aurora, Ill.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Austin Mfg. Co., Chicago, Ill.
Builders Material Supply Co., 301-335 Scarritt Bldg. Co.,
Kansas City, Mo.
Carnegie Steel Co., Pittsburg, Pa.
Clow & Sons, James B., 342 Franklin St., Chicago, Ill.
Cyclone Drill Co., Orrville, Ohio.
Dudgeon Richard, 24-26 Columbia St., New York.
Ingersoll-Rand Co., 11 Broadway, New York.
Keystone Driller Co., Beaver Falls, Pa.
McDowell & Co., Grant & Western Aves., Allegheny, Pa.
Star Drilling Machine Co., Akron, Ohio.
Williams Bros., Ithaca, N. Y.

Well Drillers

Artesian Well & Supply Co., Providence, R. I.
Atlantic Hydraulic Machinery Co., Philadelphia, Pa.
Carnegie Steel Co., Pittsburg, Pa.
Keystone Driller Co., Beaver Falls, Pa.
Phillips & Worthington, 90 West St., New York.
Star Drilling Machine Co., Akron, Ohio.

Wheelbarrows

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Builders' Material Supply Co., 301-335 Scarritt Bldg.,
Kansas City, Mo.
Cockburn Barrow & Machine Co., 30 Church St., New
York.
Fairbanks Co., New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Newell, A. T., 629 Brown Marx Bldg., Birmingham, Ala.
Ransome Concrete Machinery Co., Dunellen, N. J.
Smith Co., T. L., 305 Old Colony Bldg., Chicago, Ill.
Standard Scale & Supply Co., 50 & 52 So. Canal St.,
Chicago, Ill.
Sterling Wheelbarrow Co., West Allis, Wis.
Stuebner Iron Works, G. L., Foot of 12th St., L. I.
City, N. Y.
Toledo Wheelbarrow Co., Toledo, Ohio.
Union Iron Works, Hoboken, N. J.
Wiener Co., Ernst, 470 Hudson Terminal, New York.

Mention "Engineering Record" when writing.

Wheels (Car)

Fairbanks, Morse & Co., Chicago, Ill.
Hough Co., W. B., Monadnock Block, Chicago, Ill.
Hunt Co., C. W., West New Brighton, N. Y.
Leader Foundry & Machine Co., Quincy, Ill.
Marsh-Capron Mfg. Co., Old Colony Bldg., Chicago, Ill.
Peteler Car Co., Minneapolis, Minn.
Prosser & Son, Thos., 15 Gold St., New York.
Stuebner Iron Works, G. L., Foot of 12th St., L. I.
City, N. Y.
Union Iron Works, Hoboken, N. J.
Zelnicker Supply Co., Walter A., 406 No. Fourth St.,
St. Louis, Mo.

Wheels (Sprocket)

Chain Belt Co., Milwaukee, Wis.
Cresson Co., Geo. V., Allegheny Ave. west of 17th St.,
Philadelphia, Pa.
Fairbanks Co., New York & Chicago.
Stephens-Adamson Mfg. Co., Aurora, Ill.

Whistles

American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Fairbanks Co., New York & Chicago.
Lunkenheimer Co., Cincinnati, Ohio.
Powell Co., Wm., Cincinnati, Ohio.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.

Winches

Bond Co., Harold L., 333-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Contractors Plant Mfg. Co., 129 Erie St., Buffalo, N. Y.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Ellicott Machine Co., Bush & Severn Sts., Baltimore.
Fairbanks Co., New York & Chicago.
Maine Electric Co., Portland, Me.

Windmills

Abenague Machine Works, Westminster Station, Vt.
Baltimore Cooperage Co., 37 S. Howard St., Baltimore.
Flint & Walling Mfg. Co., Kendallville, Ind.
U. S. Wind Engine & Pump Co., Batavia, Ill.

Window Frames and Sash (Fireproof)

Badger & Sons Co., E. B., 63-75 Pitts St., Boston, Mass.
Berger Mfg. Co., Canton, Ohio.
Dahlstrom Metallic Door Co., Jamestown, N. Y.
Lupton's Sons Co., David, Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Mullins Co., W. H., Salem, Ohio.
Trussed Concrete Steel Co. (Kahn System), Detroit,
Mich.

Window Guards (Wire and Iron)

Milliken Bros., Milliken, N. Y.
Schreiber & Sons Co., L., Cincinnati, Ohio.

Windows, Metal (See Also Metallic Window Frame and Sash)

Dahlstrom Metallic Door Co., Jamestown, N. Y.
Lupton's Sons Co., David, Allegheny Ave. & Witte St.,
Philadelphia, Pa.
Milliken Bros., Milliken, N. Y.
Mullins Co., W. H., Salem, Ohio.

Wire

American Steel & Wire Co., 115 Adams St., Chicago, Ill.
Anchor Post Iron Works, 15 Church St., New York.

Mention "Engineering Record" when writing.

Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
General Electric Co., Schenectady, N. Y.
Roebbling's Sons Co., Jno. A., Trenton, N. J.
Trenton Iron Co., Trenton, N. J.

Wire (Brass and Copper)

Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
New York Blasting & Supply Co., 11 B'way, New York.
Roebbling's Sons Co., Jno. A., Trenton, N. J.

Wire Cloth

Allis-Chalmers Co., Milwaukee, Wis.
Anchor Post Iron Works, 15 Church St., New York.
Clinton Wire Cloth Co., Clinton, Mass.
Power & Mining Machinery Co., Milwaukee, Wis.
Roebbling Construction Co., 949 Broadway, New York.

Wire Fabric for Reinforcing Concrete

American Steel & Wire Co., 115 Adams St., Chicago, Ill.
American System of Reinforcing, 189 La Saile St., Chicago, Ill.
Builders' Material Supply Co., 301-335 Scarritt Bldg., Kansas City, Mo.
Clinton Wire Cloth Co., Clinton, Mass.
Corrugated Bar Co., 1410 Bank of Com. Bldg., St. Louis, Mo.
Roebbling Construction Co., 949 Broadway, New York.

Wire Rope (See Rope, Wire)

Wood Block Paving

American Creosote Works, New Orleans, La.
Southern Wood Preserving Co., Atlanta, Ga.
United Paving Co., Atlantic City, N. J.
U. S. Wood Preserving Co., 165 Broadway, New York.
Wyckoff Pipe & Creosoting Co., 50 Church St., New York.

Wood Preservers (See Also Creosoting)

Barber Asphalt Paving Co., Land Title Bldg., Philadelphia, Pa.
Cabot, Inc., 14 Oliver St., Boston, Mass.
Gulfport Creosoting Co., Gulfport, Miss.
Minwax Co., 1123 Broadway, New York.
Power & Mining Machinery Co., Milwaukee, Wis.
Standard Paint Co., 100 William St., New York.
Wyckoff Pipe & Creosoting Co., 50 Church St., New York.

Wrenches

Bond Co., Harold L., 383-391 Atlantic Ave., Boston.
Channon Co., H., Chicago, Ill.
Clow & Son, James B., 342 Franklin St., Chicago, Ill.
Fairbanks Co. New York & Chicago.
Farwell, Ozmun, Kirk & Co., St. Paul, Minn.
McCoy Co., Henry J., 65 & 67 Dey St., New York.
Pittsburg Block & Mfg. Co., 818 South St., Pittsburg.
Walworth Mfg. Co., 128-136 Federal St., Boston, Mass.
Zelnicker Supply Co., Walter A., 406 No. Fourth St., St. Louis, Mo.

STANDARD WORKS

CORROSION AND PRESERVATION

Water Power Engineering. By DANIEL W. MEAD. 803 pages, 6 x 9, 413 illustrations: \$6.00 (25s) net. The standard treatise covering Theory, Investigation and Development of Water Power.

Cement and Concrete. By LOUIS CARLTON SABIN: Second edition, revised and enlarged: 584 pages: \$5.00 (21s) net.

Design and Construction of Hydroelectric Plants. By R. C. BEARDSLEY: 520 pages: \$5.00 (21s) net.

Electric Power Plant Engineering. By J. WEINGREEN. 420 pages. \$5.00 (21s) net.

Law and Business of Engineering. By CHAS. E. FOWLER. 170 pages. \$2.50 (10/6) net.

Mathematical Handbook. By EDWIN P. SEAVER: 290 pages. \$2.50 (10/6) net. The formulæ and tables every engineer needs.

Practical Irrigation, Its Value and Cost. By AUGUST J. BOWIE, JR: 252 pages. \$3.00 (12/6) net.

Pumping Engines for Water Works. By CHARLES ARTHUR HAGUE: 416 pages. \$5.00 (21s) net.

Steam Power Plants. By HENRY C. MEYER: Second edition. 160 pages: \$2.00 (8/6) net.

Steam Power Plant Piping Systems. By WILLIAM L. MORRIS: 490 pages: \$5.00 (21s) net.

Tables of Stresses in Roof Trusses. By H. C. HEARNE. 235 pages. \$4.00 (17s) net.

McGRAW-HILL BOOK COMPANY

239 W. 39th St., New York

LONDON

BERLIN

Engineering Record **DIRECTORY**

OF MANUFACTURERS OF AND DEALERS IN

Engineers' and Contractors'
Machinery and
Supplies

20
n 3
510

THIRD
EDITION
1910

P U B L I C A T I O N O F F I C E
239 West 39th St., New York

Records Are The Best Argument

Look up the record made by

"PIONEER"

MINERAL RUBBER PIPE COATING

It is always specified where permanency and protection are absolutely essential.

"PIONEER"

RESERVOIR WATERPROOFING ASPHALT

will not dry out nor disintegrate on exposure to air, water, alkalies or acids. Send for specifications, also for data on important work where these materials have been employed during the last 14 years.

The American Asphaltum & Rubber Co.

600-614 Harvester Building, Chicago

EMPLOYERS' LIABILITY INSURANCE

CONTRACTORS' BONDS

Specialist on

CONTRACTORS' RISKS

in Any Part of the Country

Each Client Individually and Properly Classified

WILLIAM T. RITCH, Inc.

1123 Broadway, New York

We furnish the *only* protection which insures you against *loss* or *expense* arising or resulting from *claims* or damages on account of bodily injuries or death accidentally suffered by any *employees* or the *public*.

Telephones { 1721 } Madison Square
 { 1722 }



EXPLOSIVES

The Result of 108 years'
Experience

FOR RAILROAD GRADING, QUAR-
RIES, ETC.

Blasting Powder
Judson Powder

Red Cross Dynamite (Low Freezing)
Arctic Dynamite (Non-Freezing)

FOR TUNNEL DRIVING

Gelatin Dynamite
Blasting Gelatin

FOR SUBMARINE BLASTING

Semi-Gelatin
Gelatin Dynamite
Blasting Gelatin

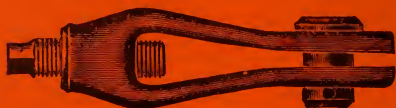
WRITE FOR ILLUSTRATED CATALOGS

E. I. du Pont de Nemours
Powder Company

Established
1802

Wilmington, Del., U. S. A.

Clevis Nuts



Turnbuckles



UPSET RODS

Forgings of All Kinds

**Cleveland City
Forge & Iron Co.**

Cleveland, Ohio

UNIVERSITY OF ILLINOIS-URBANA



3 0112 069820345